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## Chapter VI

# Sickbay and the Medicine Chest

### THE SICKBAY

THE NEED FOR A HOSPITAL aboard certain merchant vessels of the United States was established by Acts of Congress as contained in the Statute, Title 46, United States Code, Section 660-1, and implementing regulations. This hospital space, commonly referred to as the "sickbay," serves as both hospital and dispensary.

### SHIP'S MEDICINE CHEST

The need for a supply of medicines for certain merchant vessels of the United States was established by Acts of Congress as contained in the Statute, Title 46, United States Code, Section 666, and implementing regulations. The term *Ship's Medicine Chest*, refers to the pharmaceuticals, surgical supplies and equipment, and other chemicals that are stored in the sickbay or a locked compartment of reserved storage space in the ship's general storeroom. The medicine chest that was used in olden times was designed to be moved from a wrecked ship, or taken ashore to be refilled by an

apothecary.\* Today the medicine chest is a permanent part of the sickbay area of the vessel.

By statutory authority,† the space aboard merchant vessels for the sickbay must have not less than 120 cubic feet and not less than 16 square feet (floor space) for each seaman lodged therein. All fixtures chosen should offer the maximum useable area in shelf space and drawers (not too deep or shallow) for the floor space they occupy. The fixtures should be of

\* It is interesting to note that Section 8 of a Federal Act for the Government and Regulation of Seamen in the Merchant Service, approved July 20, 1790, stated: "That every ship or vessel belonging to a citizen of the United States, of the burthen of one hundred and fifty tons or upwards, navigated by ten or more persons in the whole and bound on a voyage without the limits of the United States, shall be provided with a *chest of medicines*, put up by some apothecary of known reputation, and accompanied by directions for administering the same; and the said medicines shall be examined by the same or other apothecary once at least in every year, and supplied with fresh medicine in the place of such as shall have been used or spoiled . . ." (Source: Williams, R.C. *The United States Public Health Service, 1798-1950*. Published by the Commissioned Officers Association of the USPHS, p. 28, 1951.)

† 46 U.S.C. 660-1.

resistant stainless steel, or other easily cleaned material that humidity will not damage.

There should be adequate cabinet and drawer space to provide separate storage space for different groups of pharmaceuticals, such as *internal* medications, *external* drug preparations, *poisons*, and *controlled substances* (requiring greater security). Also, a refrigerator should be available, not necessarily in the sickbay, for medications that require storage in a cool or cold place. To avoid confusion, the equipment, instruments, and surgical supplies should be stored in space separate from those holding pharmaceuticals.

Cabinets should be large enough to hold a "working quantity" of the recommended pharmaceuticals, p. VI-4+, and surgical equipment, instruments and supplies, p. VI-56+. They should permit orderly and convenient storage. All standup medication containers should be arranged alphabetically, preferably by generic name, with the labels clearly visible. Adequate lighting should be provided.

Narcotics, stimulants, and sedatives in Schedule II of the Controlled Substances Act should be kept in the Master's safe. All other controlled substances should be kept in a locked compartment except paraldehyde, which requires refrigeration.

The shelves of the medicine cabinet should be equipped with guardrails, dividers, or other devices; and drawers should have catches to prevent bottles and other items from falling or moving when the ship rolls and pitches. Also, it has been suggested that the cabinet(s) be attached to the bulkhead at a right angle to the keel of the vessel, which may prevent items from falling off the shelves.

Immediately after use, the medications and surgical supplies should be returned to their proper places. Medicines never should be put into the medicine cabinet in an open unlabeled glass, cup, or other container. If the content of a container is not known for certain, it should be destroyed. Sterile packages of such items as gauze compresses, syringes and needles should not be opened until just before use. If bottles, boxes, and packages of items are scattered on shelves or in drawers, it will be difficult to find specific items when needed. Disorder possibly

can lead to serious error in the selection of a medication.

The crew or passengers taking prescribed medications for chronic ailments should be advised to bring aboard a supply adequate for the voyage.

Generally the shipping company will delegate the immediate responsibility for the ship's sickbay and the *medicine chest* to a deck or staff officer who is trained in fundamental medical techniques. This officer should be the only person (except the Master) to have a key to the sickbay, to the *medicine chest*, and the locker where reserve medicines are stored. This officer should be responsible solely to the Master for the sickbay and medical supplies. A duplicate set of sickbay keys should be in the Master's safe, or other secure place.

## THE ADMINISTRATION OF MEDICINES

If the medical attendant/mate is to help the patient and also cooperate effectively with the physician, he needs to know why a patient is receiving a certain medicine, what effects to expect, what unusual effects may develop, what symptoms of over dosage may occur, the amount of the drug usually given, and the usual channel of administration.

### Major Channels of Administration

The route of administration of a given drug is determined by its physical and chemical properties, the site of desired action, and the rapidity of response desired. As a rule, drugs are administered for one of two effects: *Local*, in which the effects are confined to the site of application, or *systemic*, in which the results are realized after the drug is absorbed into the blood and diffuses into one or more tissues of the body.

### Administration for Local Effect

1. **Application to the skin:** Medications are applied to the skin chiefly as antiseptics, astringents, and emollients (soothing agents).
2. **Application to mucous membranes:** Preparations of drugs are applied to mucous membranes of the nose, throat, mouth, respiratory tract, eye, and genitourinary tract. They may be painted or swabbed on the surface, instilled,

sprayed, or administered by way of douche or irrigation.

### Administration for Systemic Effects

Drugs that produce a systemic effect must be absorbed and carried to the cells or tissues capable of responding to them. The channel of administration used depends upon the nature and amount of the drug to be given, the desired rapidity of effect, and the general condition of the patient.

The usual channels selected for systemic effect include the following: *oral, sublingual, rectal, inhalation, and parenteral (injection)—Intradermal, subcutaneous, intramuscular, intravenous, intraspinal, and sometimes intracardiac, intrapericardial, and intraosseous.*

1. **Oral** (by mouth)—The oral channel of administration is the safest, most economic, and most convenient way of giving medicines. Hence they should be given orally unless some distinct advantage is to be gained by giving them another way. Most drugs are absorbed from the small intestine; a few are absorbed from the stomach and colon. Drug action is slower by this route than by subcutaneous or intravenous injection. However, the drug action persists for a longer period of time as peristaltic movements keep bringing fresh portions of drug into contact with absorbing surfaces. Disadvantages of oral administration are that absorption varies with the drug physiologic motility, food content, and pathologic state of the tract.

2. **Sublingual** (under the tongue)—Drugs given sublingually are placed under the patient's tongue, where they must be retained until they are dissolved and absorbed. This method permits both rapid absorption and drug action. In addition, there is greater potency since the drug gains access to the general circulation without traversing the liver or being affected by gastric and intestinal enzymes. The number of drugs given sublingually is limited. The drug must dissolve readily, and the patient must understand that the drug is not to be swallowed and that he must not take a drink until the drug has been absorbed.

3. **Rectal**—Rectal administration can be used advantageously when the stomach is nonreten-

tive, when the medicine has an objectionable taste or odor, or when it can be changed by digestive enzymes. It is a reasonably convenient and safe method of giving drugs when oral method is unsuitable, e.g., when the patient is unconscious.

4. **Inhalation**—The respiratory tract offers an enormous surface of absorbing epithelium. If the drug is volatile and capable of being absorbed and if there is more in the inspired air than in the blood, the drug is instantaneously absorbed. This fact is of significance in situations of emergency. Amyl nitrite, ether, and oxygen are examples of volatile and gaseous agents given by inhalation.

### Parenteral

The term parenteral literally means "beside the intestine". It refers to all the ways that drugs are administered with a needle. The drug may be injected into tissues or fluids of the body. Drugs given parenterally must be readily soluble, sterile, rapidly absorbed, and should not cause pain or irritation at the site of injection. Drugs given by injection often act rapidly, and rapid action can save a life but it can also result in the loss of one, since an error in dosage or too-rapid injection cannot easily be corrected. Use with caution!!!

1. **Intradermal**—Intradermal or intracutaneous injection means that the injection is made into the upper layers of the skin. The amount of drug given is small and absorption is slow. This method is used to advantage when testing for allergic reactions of the patient. Minute amounts of the solution to be tested are injected just under the outer layers of the skin. The medial surface of the forearm and the skin of the back are the sites frequently used.

2. **Subcutaneous**—Small amounts of a drug in solution are given subcutaneously (hypodermically) by means of hypodermic syringe and needle. The needle is inserted through the skin with a quick movement, but the injection is made slowly and steadily. The angle of insertion should be 45 to 60 degrees and should be made on the outer surface of the upper arm or on the anterior surface of the thigh. In these locations there are fewer large blood vessels, and sensation is less keen than on the medial surfaces of the extremities. After the injection

of the drug and the withdrawal of the needle, the site of injection should be massaged gently to increase the rate of absorption.

Irritating drugs given subcutaneously can result in the formation of sterile abscesses and necrotic tissue.

**3. Intramuscular**—Injections are made through the skin and subcutaneous tissue into the muscular tissue of the body when prompt absorption is desirable and the drug is too irritating to be given subcutaneously. Muscles into which injection can usually be made conveniently are those of the buttock, the lateral side of the thigh, and the deltoid region of the arm.

The type of needle used for intramuscular injection depends upon the site of the injection, the condition of the tissues, and the nature of the drug to be injected. Needles from 1 to 3 inches in length may be used. The usual gauge is 19 to 22 (the larger the number, the finer the needle).

For many intramuscular injections the preferable site of injection is the buttock. The depth of insertion depends upon the amount of subcutaneous tissue and will vary with the weight of the patient. The buttock should be divided into four parts and the injection made into the *upper outer quadrant*.

**4. Intravenous**—When an immediate effect is desired or when for any reason the drug cannot be injected into the other tissues, it may be given directly into a vein as an *injection* or *infusion*. The technique of this method requires skill and perfect asepsis, and the drug must be highly soluble and capable of withstanding sterilization. It should therefore be used carefully and not too frequently. The method is of great value in emergencies. The dose and amount of absorption can be determined with accuracy, although the rapidity of absorption and the fact that there is no recall once the drug has been given constitute dangers worthy of consideration.

(a) *Injection*—In intravenous injection a comparatively small amount of solution is given by means of a syringe. The drug is dissolved in a suitable amount of normal (physiologic) saline solution or some other isotonic solution. The injection is usually made into the median basilic or median cephalic vein at the bend of the elbow. How-

ever, any vein that is accessible may be used.

If a vein of the arm has been chosen, a tourniquet is drawn tightly around the middle of the arm to distend the vein, the air is expelled from the syringe, and the needle is introduced, pointing upward toward the heart. A few drops of blood are aspirated into the syringe to make sure the needle is in the vein; the tourniquet is then removed; and the solution is injected very slowly.

Intravenous injection is employed when immediate action is necessary, when the drug is too irritating to be injected into the other tissues, or when the circulation is so poor that absorption is much retarded.

(b) *Infusion*—In intravenous infusion a larger amount of fluid is usually given, varying from 1 to 5 pints, and the method differs somewhat. The solution is made to flow by gravity or siphonage from a graduated flask through tubing, connecting tip, and needle into the vein.

Infusions are most commonly given to relieve tissue dehydration, to restore depleted blood volume, to dilute toxic substances in the blood and tissue fluids, and to supply electrolytes, drugs, and foods.

During the administration of the intravenous infusion, the patient must remain very quiet to prevent the displacement of the needle. The fluid must be given very slowly, however, to prevent reaction or loss of important constituents by way of the kidney. Ordinarily 3 to 4 hours are required for every 1000 ml. of fluid, depending on the condition of the patient, the nature of the solution, and reasons for giving it.

**Note:** Caution should be employed when administering medication locally or systemically. Seek medical advice via radio!!!

## PHARMACEUTICAL PREPARATIONS

### Uses, Adult Dosage, and Cautions

Pertinent information (monographs), that relates to *use*, *adult dosage* and *caution*, has been prepared on each medication recommended for merchant vessels. The monographs are arranged alphabetically by the product's generic or non-proprietary name.

**1. Acetaminophen Tablets (325 mg)**

(Trade Names: Tylenol, Temptra, Valorin, Valadol)

<b>Category</b>	Analgesic; Antipyretic
<b>Use</b>	Symptomatic relief of pain and fever for people who cannot take aspirin.
<b>General Information</b>	Acetaminophen is generally used to provide symptomatic relief from pain and fever associated with the common cold, flu, viral infections, or other disorders where pain or fever may be a problem. Unlike aspirin, it does not relieve the redness or swelling caused by arthritis or rheumatic conditions. It is also used to relieve pain in people with an aspirin allergy or those who cannot take aspirin because of potential interactions with other drugs such as anticoagulants.
<b>Cautions</b>	Do not take acetaminophen if you are allergic or sensitive to it. Do not take more than is prescribed on package.
<b>Possible Side Effects</b>	Taking large doses of acetaminophen for a long time may cause skin rash, itching, fever, lowered blood sugar, stimulation and/or yellowing of the skin or whites of the eyes. Other effects of overuse may be a change in the composition of your blood.
<b>Usual Dose</b>	<i>Adult</i> One to two tablets (325 to 650 mgs) 3 or 4 times per day. Do not take more than 8 tablets per day. <i>Child</i> (Ages 7 to 12): $\frac{1}{2}$ to one tablet (162 to 325 mgs) 3 to 4 times per day. Do not take more than 4 tablets per day. <i>Child</i> (Ages 3 to 6): $\frac{1}{3}$ tablet (120 mgs) 3 to 4 times per day. Do not take more than $1\frac{1}{3}$ tablets per day.
<b>Over Dosage</b>	Symptoms are development of bluish color of lips, fingertips, etc., rash, fever stimulation, excitement, delirium, depression, nausea and vomiting, abdominal pain, diarrhea, yellowing of the skin and/or eyes, convulsions, and coma.
<b>Special Note</b>	Unless abused, acetaminophen is a beneficial, effective, and relatively non-toxic drug.

**2. \*\*Acetazolamide Tablets (250 mg)**

(Trade Name: Diamox)

<b>Category</b>	Diuretic (for glaucoma of the eye, carbonic anhydrase inhibitor)
<b>Use</b>	General elimination of excess body water. Treatment of glaucoma where it is desirable to lower the pressure inside the eye. Acetazolamide is generally thought of as a weak diuretic and is most often used for its effects on glaucoma. It may also be used as part of the treatment of certain epileptic seizure disorders.
<b>General Information</b>	Acetazolamide inhibits an enzyme in the body called carbonic anhydrase. This effect allows the drug to be used as a weak diuretic, and as part of the treatment of glaucoma by helping to reduce pressure inside the eye. The same effect on carbonic anhydrase is thought to make acetazolamide a useful drug in treating certain epileptic seizure disorders. The exact way in which the effect is produced is not understood.
<b>Cautions</b>	Do not take acetazolamide if you are pregnant.
<b>Possible Side Effects</b>	Side effects of short-term acetazolamide therapy are usually minimal. Those which have been noted include tingling feeling in the arms and

	legs, loss of appetite, increased frequency of urination (weak diuretic), occasional drowsiness and/or confusion. Transient myopia has been reported.
Possible Adverse Drug Effects	Infrequent: itching, rash, blood in stool or urine, increased blood sugar, convulsions, constipation, weakness, nausea, vomiting, dizziness, dry mouth, disorientation, muscle spasms, and ringing in the ear.
Drug Interactions	Acetazolamide will inhibit the action of methenamine used for the treatment of urinary tract infections. Avoid over-the-counter drugs, products which contain stimulants or anticholinergics, which tend to aggravate glaucoma or cardiac disease.
Usual Dose	For acute glaucoma—one tablet 4 times a day. Obtain medical advice by radio before using!!!
Special Note	Acetazolamide may cause minor drowsiness and confusion, particularly during the first two weeks of therapy.

### 3. *Alcohol, Rubbing* (70% Isopropyl alcohol)

Category	Antiseptic; Disinfectant
Use	Isopropyl alcohol is effective as an antiseptic for cleaning the skin prior to injecting medications or surgical procedures.
General Information	Isopropyl alcohol may be used to disinfect the hands. Rub the skin gently but thoroughly for three minutes with gauze or cloth soaked with the alcohol. As a rubbing compound, it produces a slight redness and a burning sensation and evaporates from the skin with a cooling effect. It may be used to disinfect instruments such as knives, scissors, and syringes. They should be soaked for 20 minutes in a 70% solution. This procedure is effective against vegetative bacteria but not against spores. The germicidal activity of isopropyl alcohol is greater than that of ethyl alcohol.
Caution	Never give isopropyl alcohol internally.
Adverse Reactions	Poisoning will occur when taken internally. Signs and symptoms of isopropyl alcohol poisoning and ethyl alcohol poisoning are similar, except that gastritis with pain, nausea, and vomiting is more severe with isopropyl alcohol.
Special Note	When using as a disinfectant for instruments, do not leave stainless steel instruments in the solution for long periods because they may rust or corrode. One quarter ( $\frac{1}{4}$ ) teaspoonful of sodium bicarbonate added to the solution will act as a corrosion inhibitor.

### 5. *Aluminum Acetate Powder, Packets* (Trade Name: Dome Boro's Powder Packets)

Category	Astringent
Use	Astringent soaking solution for relief of inflammatory conditions of the skin. <b>External use only!!!</b>
General Information	A solution that is mildly bacteriostatic and astringent is produced when aluminum acetate powder is dissolved in water. The solution is

used as a soothing, astringent wet soak or dressing for inflamed or "weeping" areas of the skin. It has cleansing, cooling, and debriding qualities and affords temporary relief of pruritus and reduces inflammation of the skin due to such causes as insect bites, poison ivy, or certain fungal infections such as athlete's foot.

**Dosage and Administration** **External Use Only!!!** Dissolve one or two packs in a pint of cool water. The resulting mixture is ready for use—Do not strain or filter. Soak a clean dressing in solution and apply loosely on the inflamed skin. Remove, re-moisten and reapply every 15–20 minutes. **Do not let dressing dry out!!**

**Caution** Do not use the solution in the eyes. Do not give internally. If irritation or sensitivity develops, treatment should be discontinued.

**6. & 7. Aluminum Hydroxide Gel with Magnesium Hydroxide or Magnesium Trisilicate (oral suspension and chewable tablets)**  
(Trade Names: Aludrox, Gelusil, Maalox, and others)

<b>Category</b>	<b>Antacid</b>
<b>Use</b>	In treating gastric hyperacidity, peptic ulcer, heartburn, acid indigestion or sour stomach.
<b>General Information</b>	Antacids are used for the relief of temporary symptoms associated with indigestion caused by drugs, food, or disease. It generally promotes healing and relieves pain. Neutralizes hydrochloric acid in the stomach without producing an alkaline reaction or disturbing normal electrolyte balance. The liquid form of the drug is more effective than the tablet form.
<b>Cautions</b>	The medication should not be given to patients with a known sensitivity to aluminum, or to patients on a low sodium diet. It should be used cautiously in patients with a history of kidney problems or kidney stones.
<b>Drug Interactions</b>	Do not take this drug if you are taking a tetracycline derivative, antibiotic, digoxin, phenytoin, quinidine, warfarin, or oral iron supplement. The antacid may interfere with the effective absorption of these drugs.
<b>Adverse Reactions</b>	Moderate constipation or diarrhea may occur. Nausea, vomiting, and intestinal obstruction have been noted (usually after prolonged, high dosage use).
<b>Usual Dose</b>	<p><i>Tablets</i> One or two tablets, chewed thoroughly before swallowing, every 2 to 4 hours after meals and at bedtime.</p> <p><i>Suspension</i> Ten ml (2 teaspoonsful every 2 to 4 hours after meals and at bedtime). Dose and frequency depend on severity of symptoms and relief obtained. Dose range is 5 to 30 ml/dose.</p>

**8. \*\*Aminophylline Suppository, Rectal, 500 mg**

<b>Category</b>	<b>Bronchodilator</b>
<b>Use</b>	To assist breathing in patients who have bronchial asthma, asthmatic bronchitis, pulmonary emphysema, and certain types of heart failure. Wheezing is usually an indication for use.

- General Information** Aminophylline directly relaxes the smooth muscle of the bronchial airways and pulmonary blood vessels, thus acting mainly as a bronchodilator, pulmonary vasodilator and smooth muscle relaxant. Aminophylline also has diuretic activity and an increase in urination will probably occur following its administration.
- Caution** Aminophylline rectal suppositories are *not* indicated for acute asthmatic attacks, the degree of absorption of rectal suppositories is often unpredictable.
- Adverse Reactions** G. I. irritation: Nausea, vomiting, and epigastric pain, generally preceded by headache. Rectal irritation with continued use.
- Drug Interaction** Toxic synergism with ephedrine and other sympathomimetic bronchodilator drugs may occur.
- Usual Adult Dose** Remove wrapper, insert one suppository rectally, repeat dose in eight hours if needed. Obtain medical advice by radio before using!!!

**9. Ammonia, Aromatic Inhalant, Crushable Amps.**  
(0.3 or 0.4 ml)

- Category** Irritating stimulant for faintness
- Use** Ammonia acts as a mild respiratory stimulant for faintness, collapse, or weakness, particularly that following minor emotional upsets; and for failing circulation or respiration. Indirectly results in an increase in respiration and blood pressure.
- Adult Dosage** The ampules, wrapped in gauze and cotton, can be crushed readily with fingers. Administer by inhalation. Crush one ampule in a handkerchief or gauze and hold under the patients nose and mouth.
- Caution** Although inhalation of large concentrations of ammonia is harmful to the lungs, adverse effects are not to be expected from normal use of this preparation. *Do not* use if patient's face is flushed (red).

**10. \*\*Ampicillin Capsules, 250 mg**  
(Trade Names: Principen, Omnipen, Amcill, Polycillin)

- Category** Broad-spectrum antibiotic
- Use** Gram-positive bacterial infections. Gram-positive (pneumocci, streptococci, and staphylococci) are organisms which usually cause diseases such as pneumonia, infections of the tonsils and throat, venereal disease, meningitis (infection of the spinal column), and septicemia (infection of the blood stream). Infections of the urinary tract and some infections of the gastrointestinal tract can also be treated with ampicillin.
- General Information** Ampicillin is manufactured in the laboratory, and as such, is classified as a semisynthetic antibiotic. Because the effectiveness of the antibiotic is determined by the drug's ability to affect the cell wall of the invading bacteria, it is very important that the patient follow prescribing directions. These directions include spacing of doses as well as the number of days the patient should continue taking the medication. If they are not followed, the effect of the antibiotic is severely reduced. To ensure the maximum effect of this antibiotic, you should



	take the medication on an empty stomach, either 1 hour before or 2 hours after meals.
<b>Cautions</b>	If you have a known history of allergy to penicillin you should avoid taking ampicillin, since the drugs are chemically similar. The most common allergic reaction to ampicillin, as well as to the other penicillins, is a hive-like rash over the body with itching and redness. Allergic (anaphylactic) reactions can be severe to fatal.
<b>Side Effects</b>	<i>Common</i> Stomach upset, nausea, vomiting, diarrhea, possible skin rash. <i>Less common</i> Hairy tongue, itching or irritation around the anus and/or vagina.
<b>Drug Interactions</b>	The effect of ampicillin can be significantly reduced when taken with other antibiotics.
<b>Adult Dose</b>	<i>Adult</i> 250 mg. to 500 mg. (1 or 2 capsules every 6 hours). Obtain medical advice by radio before using!!!
<b>Note</b>	Consider use of amoxicillin instead of ampicillin because of changing sensitivities.

### 11. Amyl Nitrite Inhalant, Crushable Ampul. (0.3 ml)

<b>Category</b>	Coronary vasodilator
<b>Use</b>	The nitrites are extensively used for patients with angina pectoris. The action of the nitrites on blood vessels is a direct one on the cells of smooth muscle, causing the muscle fibers to relax. Nitrites are used as an antidote in cyanide poisoning. Amyl nitrite is effective within a few seconds after inhalation and lasts about three minutes.
<b>Adverse Reactions</b>	Amyl nitrite is likely to cause a throbbing headache, flushing, and sometimes nausea and vomiting. A sudden lowering of blood pressure may cause the patient to feel dizzy and faint.
<b>Cautions</b>	Amyl nitrite should be used with caution in patients with glaucoma, head injury or cerebral hemorrhage.
<b>Usual Adult Dose</b>	1. For anginal pain, crush one ampule in a handkerchief or gauze and hold the crushed ampule under the nose and mouth long enough for the patient to breathe several times while in a sitting position. 2. Initial treatment of cyanide poisoning, quickly remove the victim into fresh air that is free of poison. Give amyl nitrate inhalation every five minutes. This administration should be discontinued if the systolic blood pressure goes below 80mm of mercury. Give oxygen and artificial respiration rather than mouth-to-mouth resuscitation—which can poison the rescuer.

### 12. Aspirin Tablets, 325 mg

<b>Category</b>	Analgesic, antipyretic and anti-inflammatory
<b>Use</b>	Aspirin is widely used to relieve headache, fever, muscle and joint aches, and the malaise of minor infections (common cold, flu). It also produces gratifying relief of symptoms in rheumatic fever, and to a lesser extent in other kinds of arthritis.
<b>Adverse Reactions</b>	Mild poisoning with aspirin is called salicylism and consists of ringing in the ears, dizziness, disturbance of hearing and vision, sweating,

nausea, vomiting, and diarrhea. The so-called "salicylic jag" results from stimulation of the central nervous system and may progress to a state of delirium. Skin eruption and other allergic manifestations as well as deaths from salicylate poisoning have been reported.

**Caution** Aspirin should be avoided by persons taking oral anticoagulant drugs. Patients allergic to aspirin should take acetaminophen.

**Adult Dosage** For headache, one or two tablets, repeated in 4 hours if needed. For joint pains and aches, and pains associated with neuralgia, colds and other diseases, two tablets repeated every 4 hours, as needed. For severe pain not relieved by aspirin alone, 2 tablets administered with one codeine SO<sub>4</sub> 30 mg may be indicated.

### 13. **\*\*Atropine SO<sub>4</sub> Injection, 0.4 to 0.5 mg/ml**

**Category** Antidote for insecticide poisoning

**Use** Injectable atropine sulfate is included for use as an antidote in the treatment of poisoning by insecticides containing organophosphate or carbamate chemicals as part of their formulation. These chemicals are found most commonly in pesticides such as parathion, diazinon and sevin.

**General Information** The drug acts in the central nervous system to prevent coma, cyanosis, and convulsions. Other symptoms include weakness, blurred vision, contraction of the pupil of the eye, and tightness of the chest. These can be followed by vomiting, cramping, diarrhea, salivation, weeping eye, sweating, tremors, and difficult breathing.

**Caution** Atropine sulfate is contraindicated in glaucoma, adhesions between the iris and lens of the eye, and asthma. Dosage levels needed to counteract the poison produce dry, flushed, or warm skin, dryness of the mouth, rapid pulse, and rapid breathing. These symptoms may lead to restlessness, hallucinations, disorientation, then depression, medullary paralysis, and death.

**Usual Adult Dosage** For organophosphate and carbamate poisoning treatment includes maintaining respiration, administering oxygen, and injecting 2 to 4 mg of atropine I.M. at 5 to 10 minute intervals, until patient's skin is flushed and dry, and mild tachycardia (rapid pulse) occurs. Contaminated skin washed thoroughly with soap and water. In cyanotic patients, oxygen should be given to overcome cyanosis (bluish tint to skin) before administering atropine. Obtain medical advice by radio before using!!!

### 14. **Bacitracin Ointment, Topical, 500 units/g.**

**Category** Antibiotic Ointment

**Use** Bacitracin ointment is a first aid ointment used to help prevent infection and aid in the healing of minor cuts, burns and abrasions. Skin disorders caused by bacteria susceptible to bacitracin ointment, such as furuncles (boils), pyoderma, carbuncles, impetigo and abscesses, respond well to the medication.

- Caution** External use only!!! Not to be used on large open wounds or on a "weeping" area. Hypersensitivity reactions occur rarely.
- Adult Dosage** Apply a thin layer twice daily, after cleaning the area with mild soap and water.

### 15. \*\**Belladonna Elixir*

- Category** Antispasmodic
- Use** Tincture of belladonna is administered for its antispasmodic effects in conditions characterized by hypermotility of the stomach and bowel, e.g., pylorospasm, spastic colon, biliary and renal colic, and hypertonicity of the urinary bladder and ureters.
- Caution** Contraindicated in angle-closure glaucoma. Patients with glaucoma should use belladonna or atropine only on medical advice.
- Adverse Reactions** Symptoms consist of dry mouth, great thirst, and difficulty in swallowing and talking. Vision becomes blurred, pupils are dilated, and photophobia (sensitivity to light) is present. A rash may develop, which is often seen chiefly over the face, neck, and upper trunk. The pulse becomes rapid and may be weak, urinary urgency and difficulty in emptying the bladder may be noted.
- Adult Dosage** The medication should be given three times a day. Begin with a dose of 20 drops in a half glass of water. If necessary, increase each dose by one drop until relief is obtained without disturbing side effects, such as difficulty of vision, dizziness, increase in the pulse rate, and dryness of mouth. When these symptoms appear, the dose should be lowered by two or three drops, or to a level just below that causing the symptoms. Obtain medical advice by radio before using!!!
- Note** 30 drops are about equal to 0.6 ml of the tincture, or 0.2 mg of atropine SO<sub>4</sub> (the active ingredient).

### 16. *Benzoic and Salicylic Acids Ointment* (Trade Name: Whitfield's Ointment)

- Category** Antifungal
- Use** This ointment may be useful in treating fungal infections of the skin. When applied to the skin, it causes the upper layers of the skin to peel off (keratolysis). This action along with a mild antifungal effect helps in the treatment of the infection.
- Caution** External use only!!! Its use should be discontinued if irritation or redness occurs.
- Adult Dosage** Apply a thin layer, once or twice daily to involved area.

### 17. *Benzoin Tincture, Compound*

- Category** Skin protectant
- Use** Benzoin tincture is useful for treating bed sores, fissures or cracks of the lips. It is also used to protect the skin when extensive taping with adhesive is done.
- Adult Dosage** Apply to skin as needed. External use only!!!

**18. Calamine Lotion, Plain**

<b>Category</b>	Astringent
<b>Use</b>	For the relief of itching due to mild poison ivy, oak or sumac, non-poisonous insect bites or other minor skin irritations. A drying soothing lotion for <b>external use only!!!</b>
<b>Caution</b>	Do not use on open or "weeping" sores.
<b>Adult Dosage</b>	Apply lotion with a gauze pad, patting it on the affected area.

**19. \*\*Calcium Gluconate Injection, 10%**

<b>Category</b>	Antidote to oxalic acid or sodium fluoride poisoning
<b>Use</b>	Calcium gluconate injection is intended primarily to be used in case of poisoning by oxalic acid or sodium fluoride. These poisonings may cause a depletion of the calcium content of the blood resulting in convulsions (tetany). Calcium gluconate injection acts by restoring needed calcium to the blood.
<b>Caution</b>	Administer with great care and discontinue when the convulsions are brought under control. Overdosage will seriously affect the heart and may result in such symptoms as weakness, depression, loss of appetite, nausea, and vomiting.
<b>Adult Dosage</b>	Two to ten ml of the 10% solution of calcium gluconate should be administered I.V. very slowly until convulsions stop. <b>Obtain medical advice by radio before using!!!</b>
<b>Note</b>	<ol style="list-style-type: none"><li>1. For oxalic acid poisoning—<b>do not</b> wash out stomach and <b>do not induce vomiting</b>. Large amounts of milk or water should be given by mouth as soon as possible.</li><li>2. For sodium fluoride poisoning—vomiting should be induced, and administer large quantities of milk by mouth.</li></ol>

**20. Charcoal, Activated, Powder**

<b>Category</b>	General purpose antidote
<b>Use</b>	In the initial treatment of most poisonings. (Because of its property to absorb many poisons.)
<b>Adult Dosage</b>	10 g (two tablespoonsful). Mix the powder with water prior to administration. Repeat if patient vomits.
<b>Note</b>	Activated charcoal is a general antidote. It should <i>not</i> be used in place of the antidote specific for a poison when the specific antidote is available.

**21. Cidex-7**

<b>Category</b>	Sterilizing and Disinfecting Solution
<b>Use</b>	For complete sterilization or disinfection of medical instruments and appliances. Rapid acting, nonstaining, non rusting, sporicidal, virucidal, fungicidal, tuberculocidal, bactericidal, and pseudomonacidal.
<b>Direction for Use</b>	Thoroughly clean, rinse and rough-dry objects before immersing in full strength Cidex-7 solution. For disinfection—immerse completely for a minimum of 10 <i>minutes</i> to destroy vegetative pathogens. For sterili-

zation—immerse completely for a minimum of 10 *hours* to destroy resistant pathogenic spores. Remove instruments from Cidex formula-7 solution using sterile technique and rinse thoroughly with sterile water.

**Directions for Activating Solution** Mix one (1) cc of activator to 30 cc of Cidex-7 to activate solution, shake. Solution is ready to use.

**Note** When activated solution changes color to green, do not use solution beyond 28 days after mixing.

**22. \*\*Chloroquine PO, Tablets, 250 mg.**  
(Trade Name: Aralen)

**Category** Malaria Preventive

**Use** To prevent and treat malaria. When a ship is in a known malarial area, obtain medical advice from a physician on prophylactic measures effective in that region. See company policy on malaria prevention.

**Side Effects** Side effects while taking the small weekly suppressive dose are relatively mild and infrequent, and consist mainly of itching and stomach discomfort. When given more frequently to treat acute malaria, the drug may cause headache, eye disturbances, itching, and stomach discomfort with nausea or diarrhea. The drug has caused retinitis, blindness, abnormal condition of the blood (blood dyscrasia), and other serious untoward effects when administered daily for prolonged periods of time.

**Caution** Do not administer to pregnant women or patients with psoriasis or porphyria. Use with caution in patients with liver disease.

**Adult Dosage** 1. Suppressive (preventive) treatment schedule: Begin treatment with Chloroquine PO<sub>4</sub> two (2) weeks before entering a malarial port. Continue the drug six weeks after the last exposure. The dosage will be 500 mg. (two tablets) by mouth once weekly on the same day of each week.

2. For acute attack: Initially give a dose of 1 gm. (four tablets) of Chloroquine PO<sub>4</sub>; then six hours later give 500 mg. (two tablets); then two tablets daily on the next two days.

**Notes** Obtain medical advice by radio before using!!!

Chloroquine also possesses amebicidal properties and is sometimes effective in the treatment of chronic lupus erythematosus and rheumatoid arthritis.

Add Fansidar in equal amounts for areas where Chloroquine resistant malaria exists.

**23. Clove Oil**

**Category** Topical Dental Analgesic

**Use** For the temporary relief of a tooth ache when there is a cavity in the tooth.

**Caution** Because Clove Oil has an irritating effect on tissues, use extra care to avoid contacting surrounding gum or other mouth areas.

**Procedure** If possible, dry the cavity with cotton wrapped on a swab stick and then pack it with a piece of cotton that has been dipped in oil of cloves. This procedure may be repeated as often as necessary.

24. **\*\*Codeine Sulfate Tablets, 30 mg.**

<b>Category</b>	Narcotic Analgesic and Cough Suppressant
<b>Use</b>	For relief of moderate to moderately severe pain, and as a cough suppressant.
<b>General Information</b>	Codeine Sulfate is a narcotic drug with some pain-relieving and cough-suppressant activity. As an analgesic, it is useful for mild to moderate pain. 30 to 60 mg. of Codeine Sulfate is approximately equal in pain-relieving effect to 2 aspirin tablets (650 mgs.) Codeine SO <sub>4</sub> may be less active than aspirin for types of pain associated with inflammation, since aspirin reduces inflammation but Codeine SO <sub>4</sub> does not.  Codeine SO <sub>4</sub> suppresses the cough reflex but does not cure the underlying cause of the cough. In fact, sometimes it may not be desirable to overly suppress cough because cough suppression reduces your ability to naturally eliminate excess mucus produced during a cold or allergy attack. Other narcotic cough suppressants are stronger than Codeine SO <sub>4</sub> , but Codeine SO <sub>4</sub> remains the best medicine available today.
<b>Caution</b>	Do not take Codeine SO <sub>4</sub> if you know you are allergic or sensitive to it. Long-term use of this drug may cause drug dependence or addiction. Codeine SO <sub>4</sub> is a respiratory depressant. Use this drug with extreme caution if you suffer from asthma or other breathing problems. Codeine SO <sub>4</sub> affects the central nervous system, producing sleepiness, tiredness, and/or inability to concentrate. Be careful if you are operating machinery, or performing other functions requiring concentration. If you are pregnant or suspect being pregnant <i>do not take this drug.</i>
<b>Side Effects</b>	Most frequent: light-headedness, dizziness, sleepiness, nausea, vomiting, loss of appetite, and sweating. Usually the effects disappear if you simply lie down or lowering the dose.  More serious side effects of Codeine Sulfate are shallow breathing or difficulty in breathing.
<b>Adverse Drug Effects</b>	Euphoria (feeling high), weakness, sleepiness, headache, agitation, uncoordinated muscle movement, minor hallucinations, disorientation and visual disturbances, dry mouth, loss of appetite, constipation, flushing of the face, rapid heart beat, palpitations, reduced sex drive and/or potency, itching, skin rashes, anemia, lowered blood sugar, and a yellowing of the skin and/or whites of the eyes. Narcotic analgesics may aggravate convulsions in those who have had convulsions in the past.
<b>Drug Interactions</b>	Because of its depressant effect and potential effect on breathing, Codeine SO <sub>4</sub> should be taken with extreme care in combination with alcohol, sleeping medicine, tranquilizers, or other depressant drugs.
<b>Usual Dose</b>	<i>Adult</i> ½ to 2 tablets (15–60 mgs) 4 times per day for relief of severe pain; ⅓ to ⅔ tablet (10–20 mgs) every few hours as needed to suppress cough. <b>Obtain medical advice by radio before using!!!</b>
<b>Over Dosage</b>	Symptoms are depression of respiration (breathing), extreme tiredness progressing to stupor and then coma, pinpointed pupils of the eyes, no response to stimulation such as a pin stick, cold and clammy skin, slowing down of the heartbeat, lowering of blood pressure, convulsions, and cardiac arrest.

25. *Cyclizine (See No. 106)*26. **\*\*Dextran Injection 6% and Sodium Chloride 0.9%, 500 ml.**

(Trade Names: Macrodex-70, Dextran-75)

- Category** Plasma Volume Expander
- Use** Dextran is used to expand plasma volume and maintain blood pressure in the emergency treatment of shock caused by loss of blood.
- General Information** Dextran is not considered a substitute for whole blood or its derivatives when the latter are needed for the treatment of anemia secondary to hemorrhage or when it is essential to restore blood proteins after traumatic injuries, burns and so forth. The effect of an injection of 500 to 1,000 ml. of Dextran (6%) usually persists for a period of 24 hours. Thirty to 50% is excreted in the urine and the remainder is metabolized in the body.
- Side Effects** Hypersensitivity reactions (rash, itching, nasal congestion, difficult breathing, tightness of the chest, and mild hypotension) are primary side effects observed. However, the incidence is low and the reactions generally mild.
- Caution** Do not allow the bottle to drain completely of fluid, in order to prevent air from entering the patient's vein.
- Dosage** 500 ml. infused I.V. at a rate of 80 to 40 ml. per minute, so that the entire amount is given over a period of 15 to 30 minutes. Repeated injections may be given when necessary, if blood or its derivatives are not available. Total amount administered should not exceed 20 ml. per kilogram of body weight during the first 24 hours. **Obtain medical advice by radio before using!!!**
- Note** *Blood* is preferred over plasma or dextran in the treatment of shock associated with bleeding and severe burns.

27. *Dextromethorphan Hbr. Syrup (15 mg./5 ml.) with Glyceryl Guaiacolate*

(Trade Names: Robitussin-DM, 2/G-DM)

- Category** Non-Narcotic Cough Suppressant
- Use** For relieving or preventing coughs. This preparation is particularly useful for relatively severe coughs which are persistent and distressing to the patient. An advantage of Dextromethorphan is that it is generally as effective as codeine without its addictiveness.
- Caution** Adverse reactions are mild and infrequent, and include slight drowsiness, nausea, and dizziness.
- Dosage** Take one or two teaspoonfuls (5 to 10 ml.) every 4 to 6 hours as needed for cough and congestion.

28. **\*\*Dextrose 5% and Sodium Chloride 0.45% Injection, 1,000 ml.**

- Category** Intravenous Nutrient, Fluid Replacement, and Plasma Expander
- Use** Dextrose and Sodium Chloride injection, when indicated, provides calories for energy, replaces water and electrolytes in dehydrated patients, and increases blood volume in shock and hemorrhage.

- Caution** Do not administer unless solution is clear and free of particles. Do not allow the bottle to drain completely of fluid, in order to prevent air from entering the patient's vein.
- Dosage** To administer I.V., one has to adjust the dosage for the patient and condition being treated. Most I.V. solutions should not be administered at a faster rate than 500 ml. per hour, except in emergency situations. Obtain medical advice by radio before using!!!

**29. \*\*Dextrose Injection, 50%, 50 ml.**

- Category** Intravenous Glucose
- Use** Dextrose I.V. injection rapidly restores blood glucose levels when insulin shock (hypoglycemia) occurs in the diabetic patient, who cannot ingest carbohydrates by mouth.
- Caution** Give only on radio advice!!! Follow careful sterile procedures. Administer only if solution is clear and free of particles. Do not allow bottle to drain completely, to prevent air from entering the vein which could result in a fatal air embolism.
- Adult Dosage** Quantity administered and dilution (if any) must be adjusted for the patient and condition being treated. Administer I.V. slowly, taking care that none of the concentrated solution is injected into tissue surrounding the vein, where it may cause tissue damage. Obtain medical advice by radio before using!!!

**30. \*\*Diazepam Injection, 5 mg./ml., 2 ml.**

(Trade Name: Valium)

- Category** Tranquilizer
- Use** Diazepam injection is especially suited to the treatment of agitated states, including alcohol withdrawal and convulsions; shivering due to hypothermia after exposure to near-drowning, and as treatment during a convulsive seizure (though not for anti-convulsive maintenance).
- Caution** Diazepam injection should be given only on radio approval by a physician. Do not inject I.V., as this route of administration causes a very rapid therapeutic effect and side effects which may lead to respiratory arrest. Do not give with sedatives, hypnotics, or narcotics which may intensify sedation. Diazepam injection should be given with extreme caution to persons prone to drug abuse.
- Adverse Reactions** Side effects with normal dosages may include dryness of the mouth, subnormal body temperatures, fever, slurred speech, or visual disturbances in very few persons. Over dosage leads to fatigue, drowsiness, diminished reflexes, dizziness, mental confusion, and coma.
- Adult Dosage** Usual dosage is from 2 to 10 mg., which may be repeated once in one to four hours, depending upon the response and severity of the condition. Obtain medical advice by radio before using!!!
- Warning** Controlled substance, Schedule, IV. Store in a locked cabinet and keep an exact record of its use.



31. **\*\*Diazepam Tablets, 2 mg., 5 mg., 10 mg.**

(Trade Name: Valium)

Category	Tranquilizer
Use	For relief of symptoms of anxiety, fatigue, or agitation.
General Information	Diazepam is a member of the chemical group of drugs known as benzodiazepines. These drugs are used as either antianxiety agents, anticonvulsants, or sedatives (sleeping pills). They exert their effects by relaxing the large skeletal muscles and by a direct effect on the brain.  Benzodiazepine tranquilizing drugs can be abused if taken for long periods of time and it is possible to develop withdrawal symptoms if you discontinue the therapy abruptly. Withdrawal symptoms include convulsions, tremor, muscle cramps, stomach cramps, vomiting, and sweating.
Caution	Do not take Diazepam if you know you are sensitive or allergic to the drug. It may aggravate narrow angle glaucoma, but not open angle glaucoma.  Diazepam can cause tiredness, drowsiness, and inability to concentrate. Be extremely careful when operating machinery or performing activities which require concentration. Avoid taking this drug during the first 3 months of pregnancy.
Side Effects	Most common—mild drowsiness during the first few days of the therapy.
Adverse Drug Effects	Major adverse reactions—confusion, depression, lethargy, disorientation, headache, lack of activity, slurred speech, stupor, dizziness, tremor, constipation, dry mouth, nausea, inability to control urination, changes in sex drive, irregular menstrual cycle, changes in heart rhythm, lowered blood pressure, retention of fluids, blurred or double vision, itching, rash, hiccups, nervousness, inability to fall asleep, and (occasional) liver dysfunction.
Drug Interactions	Diazepam is a central nervous system depressant. Avoid alcohol, tranquilizers, narcotics, sleeping pills, barbiturates, MAO-inhibitors, antihistamines, and other medicine used to relieve depression.
Adult Dosage	One or two tablets (2 to 10 mg.), 2 to 4 times a day, depending upon the condition being treated. Obtain medical advice by radio before using!!!
Overdosage	Symptoms are confusion, sleep or sleepiness, lack of response to pain such as a pin stick, shallow breathing, lowered blood pressure, and coma.
Warning	Controlled substance, Schedule IV. Keep exact records and store in a locked cabinet.

32. **\*\*Digoxin Tablets, 0.25 mg.**

(Trade Name: Lanoxin)

Category	Cardiac Stimulant
Use	For congestive heart failure and other heart diseases.
General Information	This medication is generally used for long periods of time to treat congestive heart failure and other heart abnormalities.

Caution	Do not use this drug if you know you are allergic or sensitive to digitalis. Long-term use of Digoxin can cause the body to lose potassium, especially since Digoxin is generally used in combination with a diuretic drug. For this reason, be sure to eat a well-balanced diet and emphasize foods which are high in potassium such as bananas, citrus fruits, melons, and tomatoes.
Side Effects	Most common—loss of appetite, nausea, vomiting, diarrhea, blurred or disturbed vision.
Adverse Drug Effects	Enlargement of the breasts has been reported after long-term use of Digoxin, but this is uncommon. Allergy or sensitivity to Digoxin is also uncommon.
Drug Interactions	Diuretics (drugs which increase the production of urine), can reduce the potassium in your blood and interact with Digoxin.
Adult Dosage	The first dose, known as the digitalizing dose, is 1 mg. to 1.5 mg. Maintenance dose ranges from 0.125 mg. to 0.5 mgs. once daily. Obtain medical advice by radio before using!!!
Note	The patient should start on the dosage previously prescribed by his physician. Do not give without medical advice by radio except as replacement medicine to patient already receiving it.

33. *Diphenhydramine Hydrochloride Caps, 25 mg.*  
(Trade Names: Benadryl, Rohydra)

Category	Oral Antihistamine
Use	For seasonal allergy, stuffed and runny nose, itching of the eyes, scratching of the throat caused by allergy, and other allergic symptoms such as itching, rash or hives. In addition, Diphenhydramine has been used for motion sickness and, with other drugs, for Parkinson's disease.
General Information	Antihistamines generally, and Diphenhydramine specifically, act by blocking the release of the chemical substance histamine from the cell. They work by drying up the secretions of the nose, throat and eyes.
Caution	Do not use the drug if allergic to the medication. It should be avoided or used with extreme care if you have glaucoma, stomach ulcer, or other stomach problems, enlarged prostate, or problems passing urine. It should not be used by people who have deep-breathing problems such as asthma. Diphenhydramine can cause dizziness, drowsiness, and lowering of blood pressure. Young children can show signs of nervousness, increased tension, and anxiety.
Side Effects	Occasionally seen—itching, rash, sensitivity to light, perspiration, chills, dryness of the mouth, nose and throat; lowering of blood pressure, headache, rapid heartbeat, sleeplessness, dizziness, disturbed coordination, confusion, restlessness, nervousness, irritability, euphoria (feeling high), tingling of the hands and feet, blurred vision, double vision, ringing in the ears, stomach upset, loss of appetite, nausea, vomiting, tightness of the chest, wheezing and nasal stuffiness.
Adverse Drug Effects	Use with care if you have a history of asthma, glaucoma, thyroid disease, heart disease, high blood pressure, or diabetes.

<b>Drug Interaction</b>	Do not take with MAO inhibitors. (Example: do not take with tranquilizers, sedatives and sleeping medication.) Diphenhydramine will enhance the intoxicating effect of alcohol.
<b>Usual Dosage</b>	<i>Adult</i> 1 or 2 capsules (25–50 mg.) 3 to 4 times a day.
<b>Note</b>	Medication will cause drowsiness, caution when operating machinery.

**34. \*\*Diphenhydramine Hydrochloride Injection, 50 mg./ml., 1 ml.**

<b>Category</b>	Antihistaminic (anaphylactic reaction)
<b>Use</b>	(Same as diphenhydramine HCl caps.) This form of the drug is particularly useful in the treatment of anaphylactic reaction, a severe allergic emergency that is always a potential occurrence following injection, or even ingestion, of medication.
<b>Caution</b>	(Same as diphenhydramine HCl caps.) Subcutaneous injection should be avoided because of pain and irritation. Doses of 100 mg. or more, given by injection to patients with hypertension or cardiac disease, may seriously elevate the blood pressure and accelerate the heart rate.
<b>Adverse Effects</b>	(Same as diphenhydramine HCl caps.)
<b>Adult Dosage</b>	10 to 50 mg. injected I.V. or deeply I.M. every 3 hours for severe symptoms. Maximum daily dose, 400 mg. <b>Obtain medical advice by radio before using!!!</b>

**35. \*\*Diphenoxylate Hydrochloride 2.5 mg. with Atropine Sulfate 0.025 mg. Tablets**  
(Trade Name: Lomotil)

<b>Category</b>	Antidiarrheal
<b>Use</b>	Symptomatic treatment of diarrhea.
<b>General Information</b>	Lomotil and other antidiarrheal agents should only be used for short periods. They will relieve the diarrhea, but not its underlying causes. Sometimes these drugs should not be used even though there is diarrhea present. People with some kinds of bowel, stomach or other disease may be harmed by taking antidiarrheal drugs. Do not use Lomotil without medical advice.
<b>Caution</b>	Do not take Lomotil if you are allergic to this medication or any other medication containing atropine, or if you are jaundiced (yellowing of the whites of the eyes and/or skin) or are suffering from diarrhea caused by antibiotics. Do not use Lomotil if you are pregnant, or if the mother is nursing a new born baby.
<b>Side Effects</b>	Most common—dryness of the skin inside the nose or mouth, flushing or redness of the face, fever, unusual heart rates, inability to urinate.
<b>Adverse Drug Effects</b>	Taking Lomotil for extended periods may cause abdominal discomforts, swelling of the gums, interference with normal breathing, feeling of numbness in the extremities, drowsiness, restlessness, rashes, nausea, sedation, vomiting, headache, dizziness, depression, feeling unwell, lethargy, loss of appetite, euphoria (feeling high), itching, and coma.
<b>Drug Interaction</b>	Lomotil, a depressant on the central nervous system, may cause tiredness or inability to concentrate, and may thus increase the effect of sleeping pills, tranquilizers, and alcoholic beverages. Avoid large amounts of alcohol while taking Lomotil.

- Usual Dosage** Four (4 tablets per day until diarrhea has stopped; then reduce to the lowest level that will control diarrhea (usually two (2) tablets per day or less). Obtain medical advice by radio before using!!!
- Over Dosage** Lomotil overdose is generally accidental: patients, feeling that the prescribed amount has not cured their diarrhea, will take more medication on their own. Symptoms of overdosage (particularly effects on breathing) may not be evident until 12 to 30 hours after medication has been taken. Symptoms are dryness of skin, mouth, and/or nose, flushing, fever, and abnormal heart rates, with possible lethargy, coma, or depression of breathing.
- Note** May cause drowsiness, be careful if operating machinery.

### 36. Benzalkonium Chloride, 17%

*(Disinfectant—Detergent, General Purpose, Concentrate, Phenolic Synthetic Type)*

- Category** All-Purpose Disinfectant
- Use** As a liquid concentrate, for multiple uses in various dilutions of water, this disinfectant is suitable for wiping down the sickbay or a patient's quarters. It can be added to laundry wash water for bed linens, towels, clothing, or surgical dressings. It is useful in sanitizing glassware, dishes, bedpans, urinals, lavatories, toilet seats, and bowls.
- This is a disinfectant that can be used on rubber goods and surgical and dental instruments. (Blood, dirt, and exudate should be removed before soaking these articles in disinfectant solution.)
- Caution** This product is poisonous and caustic in concentrated form. Dispense and mix with care. Follow directions carefully. Do not use on humans or animals.

### 37. \*\*Ephedrine Sulfate Capsules, 25 mg.

- Category** Bronchodilator
- Use** In the treatment of bronchial asthma, and is useful in preventing acute attacks. However, epinephrine is preferable when attacks are acute because of its more rapid effect.
- General Information** As a constituent of nasal drops, jellies and sprays, ephedrine relieves acute congestion of hay fever, sinusitis, head colds, and vasomotor rhinitis. Shrinkage of mucous membranes begins immediately and lasts for several hours.
- Side Effects** Toxic doses are likely to cause insomnia, nervousness, dizziness, tremor, headache, heart palpitation, and sweating. Occasionally a patient will exhibit symptoms of hypersensitivity. The substance may cause urinary retention in older men.
- Caution** Because of its cardiovascular action, ephedrine SO<sub>2</sub> should not be given to patients with chronic heart disease, high blood pressure, diabetes, or hyperthyroidism. Central nervous system effects of ephedrine are similar to those of amphetamine but are considerably less marked.
- Adult Dosage** One 25 mg. capsule 4 times a day. If used for several days, phenobarbital may be indicated to overcome its stimulant effects (one phenobarbital 30 mg. tab up to 3 times a day). Obtain medical advice by radio before using!!!

38. **\*\*Epinephrine Hydrochloride Injection, 1:1000, 1 ml.**

(Trade Name: Adrenalin)

- Category** Sympathomimetic
- Use** Epinephrine HCl is most commonly used to relieve the respiratory distress of acute asthma and provide rapid relief of severe hypersensitivity reactions to drugs, insect bites, and other allergens. It may be of use in restoring cardiac arrest and is used topically to check bleeding.
- Caution** Epinephrine may cause anxiety, heart palpitation, and headache. Excessive doses can cause acute hypertension and irregular heart beat. Except in life-threatening situations, it should *not* be administered to patients with hypertension, diabetes, hyperthyroidism, and heart disease.
- Adult Dosage** By subcutaneous or intramuscular injection, 0.3 ml. of 1:1000 solution, every two hours as necessary. The usual dosage range is 0.1 to 0.5 ml. Obtain medical advice by radio before using!!!

39. **\*\*Erythromycin Tablets, 250 mg.**

(Trade Name: Erythrocin, Ilosone, Ethril)

- Category** Bacteriostatic Antibiotic (alternate for penicillin)
- Use** For infections of the upper and lower respiratory tract; infections of the mouth, gums, and teeth; infections of the nose, ears and sinuses. Can also be effective against amoebas of the intestinal tract, which cause amoebic dysentery. Erythromycin is a relatively safe antibiotic. It is used instead of penicillin for mild to moderate infections in people who are allergic to the penicillin class of antibiotics. Note: Erythromycin is not the antibiotic of choice for severe infections.
- General Information** Erythromycin works by interfering with the normal growth cycle of the invading bacteria, preventing them from reproducing and thus allowing the body's normal defenses to fight off the infection. This process is referred to as bacteriostatic action. Erythromycin is absorbed from the gastrointestinal tract, but it is deactivated by the acid content of the stomach. Because of this the tablet form of this drug is formulated in such a way as to bypass the stomach and dissolve in the intestine.
- Caution** Erythromycin is excreted primarily through the liver. People with liver disease or damage should exercise caution.
- Side Effects** Most common — nausea, vomiting, stomach cramps, diarrhea. Less common — hairy tongue, itching, irritation of the anal and/or vaginal region.
- Adverse Drug Effects** Erythromycin should not be given to people with known sensitivity to the drug. It may cause a yellowing of the skin and eye. If this occurs, discontinue the medication, get medical advice.
- Adult Dosage** 1 to 2 tablets (250 to 500 mg.) every six hours. Obtain medical advice by radio before using!!!

#### 40. Skin Freeze

- Category** Temporary Anesthesia of the skin by freezing
- Use** A topical anesthetic for external areas only—anesthetizes through freezing. Immediately effective and economical for everyday use. Invaluable for shortening *minor* surgical procedures—eliminates the discomfort of hypodermic injections.
- Application** Aim at area to be anesthetized from a distance of approximately 10 to 15 cm (4 to 6 inches). Continue spraying until desired freeze effect is evident. Confine spray to a limited area.
- Caution** For anesthetizing external areas only. Must not be taken internally. Avoid inhaling. Keep away from eyes or other mucous membranes.
- Note** Contents are non-inflammable and low toxicity.

#### 41. Eye Wash or Eye Irrigating Solution, Isotonic, Sterile

(Trade Name: Blikx, Dacriose)

- Category** Eye Wash (irrigating solution)
- Use** The solution is used for irrigating or flushing the eye to wash away foreign particles, mucous secretions, and fluorescein dye used in diagnosis. The use of a sterile isotonic irrigating solution for the eyes is definitely superior to the use of an eyecup with a non-sterile solution, because it eliminates the chance of infection from either the eye cup or the solution.
- Caution** Keep the container tightly closed. Do not touch the dispensing tip to the eye or any surface because this may contaminate the solution.
- Directions** Point the tip of the applicator downward toward the eye and gently squeeze the plastic bottle to irrigate. Use generously.

#### 42. Fluorescein Sodium Ophthalmic Strips, Sterile

- Category** Ophthalmic Diagnostic Agent. Requires necessary light source. A Wratten Gelatin Filter No. 47A (Kodak) cut to the size of a flashlight lens works very well.
- Use** Fluorescein is a dye which, when applied into the eye, stains abraded or ulcerated areas of the cornea. Such defects will appear green under normal light. Foreign bodies are surrounded by a green ring. Similar lesions of the conjunctiva are delineated in orange-yellow.
- Caution** Before using the strip, if the eye is dry, instill a drop of sterile eye wash solution.
- Dosage and Administration** Anesthetize the eye with one drop of tetracaine eye drops 0.5%. Remove the fluorescein strip from the sterile wrapper without touching the dyed end. Moisten the dyed end with sterile eye irrigation solution. Lift the upper eyelid and touch the dyed tip of the strip to the outside corner of the eye; allow the dye to flow across the eye. Patient should close lid tightly after application to distribute stain.

43. **\*\*Furosemide Tablets, 40 mg.**  
(Trade Name: Lasix)

Category	Diuretic
Use	Lasix is a potent diuretic, used for congestive heart failure, cirrhosis of the liver, high blood pressure, and other conditions where it may be desirable to rid the body of excess fluid.
General Information	Furosemide causes the production of urine by affecting the kidneys. It may also cause lowered blood pressure. Furosemide is particularly useful, as a very strong drug with great diuretic potential, when a drug with less diuretic potential would fail to produce the desired therapeutic effect.
Caution	Furosemide if given in excessive quantities will cause depletion of water and electrolytes. You should not take this drug if your production of urine has been decreased abnormally by some type of kidney disease, or if allergic to the medication.
Side Effects	<p>If you are taking Furosemide you should be aware that changes may develop in potassium and other electrolyte (salts) concentrations in your body. In the case of lower potassium (hypokalemia, you may observe these warning signs: dryness of the mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular tiredness, low blood pressure, stomach upset including nausea and vomiting. To treat this, potassium supplements are given in tablet form, or by increased consumption of potassium-rich foods such as bananas, citrus fruits, melons, and tomatoes.</p> <p>Furosemide may alter the metabolism of sugar in your body. If you have diabetes mellitus, you may develop high blood sugar or sugar in the urine while you are taking the drug. To treat this problem, the medication for diabetes will be altered.</p>
Adverse Effects	Dermatitis, unusual skin reactions, tingling in the extremities, postural hypotension (or dizziness on rising quickly from a sitting or lying position), anemia of various types. Rare: production of a sweet taste in the mouth, burning feeling in the stomach and/or mouth, thirst, increased perspiration, frequent urination.
Drug Interactions	<ol style="list-style-type: none"><li>1. Furosemide will add to the action of other blood-pressure lowering drugs.</li><li>2. If you are taking furosemide because of congestive heart failure and are also taking digitalis, loss of potassium may significantly affect the toxicity of digitalis.</li><li>3. Interaction with aminoglycoside antibiotic may cause periodic hearing losses.</li><li>4. If taking high doses of aspirin, to treat arthritis or similar diseases, with Furosemide, you will have to lower the dose of aspirin.</li><li>5. If taking lithium carbonate, you should not take a diuretic.</li><li>6. Do not administer to women of child bearing age.</li></ol>
Adult Dosage	Depending on the disease and patient's response, 20 to 80 mgs. per day. Obtain medical advice by radio before using!!!

**44. Gamma Benzene Hexachloride Cream, 1%**  
(Trade Name: Kwell)

- Category** Parasiticide
- Use** For infestations of scabies, lice, and chiggers. A single application usually eliminates the parasites; but a second application is sometimes necessary.
- Adult Dosage** External use. After a bath or shower, apply a thin layer directly to the involved skin and hair (but not to the face). Keep it on the skin for 12 to 24 hours, depending on the infestation. Then the patient should bathe or shower thoroughly and put on clean clothes. The bed linen should be changed. If the first application is not successful, a second application may be made after four days. Clothing and bed linen should be boiled to prevent reinfection. Instructions on the package should be read and followed carefully.
- Caution** It is irritating to mucous membranes and *should not* come in contact with the eyes. If accidental contact occurs with the eyes, flush with sterile irrigating solution. Prolonged and repeated applications should be avoided, as there may be absorption through the skin.

**45. \*\*Glucagon for Injection, 1 mg.**

- Category** Glucoside, for insulin shock
- Use** The primary use of glucagon is for emergency treatment of patients with severe shock (hypoglycemic reactions caused by insulin overdosage. It should be used when no one aboard is trained to administer dextrose injection intravenously. It results in a smooth, gradual termination of the patient's coma in 5 to 20 minutes. The drug is useful only if liver glycogen is available. It is of little or no value in starvation, adrenal insufficiency, or chronic hypoglycemia.
- Adult Dosage** Glucagon usually is administered subcutaneously or intramuscularly. It may be given I.V., but this route is not recommended in treatment of patients aboard ship. Glucagon injection is prepared by adding 1 ml. of the supplied diluent to the vial of freeze-dried glucagon powder. The usual dose is from 0.5 mg. to 1.9 mg., repeated once or twice at twenty-minute intervals, depending upon the depth and duration of the coma. As soon as the patient awakens, carbohydrates, such as candy, should be given orally to prevent secondary hypoglycemic reactions. Failure of the patient to respond within 20 minutes after the second injection necessitates immediate I.V. administration of dextrose. Obtain medical advice by radio before using!!!
- Caution** In emergency situations where low blood sugar only is suspected but not established, glucagon should not be substituted for I.V. dextrose.

**46. Hand and Body Lotion**

- Category** Skin Lotion
- Use** As a general purpose emollient and protectant for the skin. It may be used by the medical attendant following frequent hand washing. It may also be used as a general body or back rubbing lotion for patients.



- Caution** Hand and body lotions may become contaminated during use, particularly if the lotion contacting the skin is permitted to flow back into the bottle. Containers of lotion should be used by only one person at a time, and destroyed after use by any patient with a communicable disease.

#### 47. Hemorrhoidal Suppositories

- Category** Hemorrhoidal Preparation
- Use** For the temporary relief of itching, burning, and soreness from hemorrhoids (piles). It soothes inflamed hemorrhoids. The patient should avoid straining on the stool, heavy lifting, coughing, and excessive sneezing. Control constipation (so that straining should not be necessary) with mild laxatives. Warm baths may help.
- Adult Dosage** Remove the wrapper and insert one suppository as deeply as possible into the rectum in the morning, at bedtime, and immediately after each bowel movement.
- Caution** Keep in refrigerator. If the suppository is soft, hold it under cold water before removing the foil wrapper. *Do not* use if there is bleeding from the rectum. Discontinue use if any of the following occurs: eye pain, rapid pulse, blurring of vision, or dizziness. Use less often if dryness of mouth occurs.

#### 48. \*\*Homatropine Hydrobromide Eye Drops, 5%

- Category** Pupil Dilator
- Use** Homatropine hydrobromide is a synthetic alkaloid that resembles atropine. When it is instilled in the conjunctival sac, the pupil is dilated as rapidly as with atropine but the duration of effect is shorter. It is used in the eye in the treatment of inflammation of the cornea or the iris. It causes dilation of the pupil and paralysis of the ciliary muscle.
- Caution** For use *only on radio medical advice*. Because vision is impaired for several hours after use, caution must be exercised in the assignment of tasks such as operation of machinery or reading gauges.
- Adult Dosage** To produce cycloplegia, instill one drop in the eye only as often as directed. **Obtain medical advice by radio before using!!!**

#### 49. Hydrocortisone-Neomycin-Polymyxin B Ear Drops (Trade Name: Cortisporin)

- Category** Antibiotic, Anti-pruritic, Anti-inflammatory Ear Solution
- Use** **For the ear only!!!** Cortisporin ear drops is a combination antibiotic and cortisone-like medicine. It is used to help the body overcome infections of the ear and to help provide relief from redness, irritation, and discomfort of certain ear problems.
- Caution** The preparation is not recommended in herpes simplex, chicken pox, tuberculosis, and fungal or acute pus-forming infections. Medical advice by radio should be sought before using on patients with per-

	forated eardrum, chronic infection of the middle ear, or before continuing treatment beyond seven days.
<b>Dosage and Application</b>	Before apply this medicine, wash the area to be treated (including the ear canal) with soap and water, and dry thoroughly. The ear canal should be dried with a sterile cotton applicator. Tilt the head so that the infected ear faces up. Gently pull the earlobe up and back for adults (down and back for children) to straighten the ear canal. Instill four drops into affected ear 3 to 4 times a day. Keep ear facing up for about 5 minutes to allow medicine to come in contact with infection. A clean, soft cotton plug may be gently inserted into the ear opening to prevent the medication from leaking out.
<b>Note</b>	Stinging and burning have been reported when solution reaches the middle ear.

To prevent contamination of the ear drops, *do not* touch the dropper to any surface (including the ear), and keep the container tightly closed.

#### 50. *Hydrocortisone Ointment, 1%*

<b>Category</b>	Topical Anti-inflammatory Ointment
<b>Use</b>	Hydrocortisone ointment is indicated for the relief of inflammatory skin disorders, including common rashes, inflamed skin, and disorders causing itching and discomfort. It may be used for temporary relief of itching, burning, and soreness from hemorrhoids (piles).
<b>Caution</b>	Hydrocortisone ointment is contraindicated in small pox, chicken pox, other infections, and should never be used in the eye or for extended periods without medical approval. Should the condition get worse, discontinue use.
<b>Adverse Effects</b>	The following reactions have occurred: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, and hypopigmentation.
<b>Dosage</b>	Cleanse the skin before each use. Apply ointment sparingly, in a thin film, to the affected area 2 or 3 times daily and massage in gently.

#### 51. *\*\*Hydrocortisone Sodium Succinate for Injection, 100 mg.*

(Trade Name: Solu-Cortef)

<b>Category</b>	Injectible Corticosteroid
<b>Use</b>	On medical advice only!!! Used for: <ol style="list-style-type: none"> <li>1. Severe shock — large doses combined with standard methods of combating shock helps restore blood pressure and circulation;</li> <li>2. Acute allergic reactions—after epinephrine (or other substances that elevate blood pressure) to combat severe asthma, drug reactions, and anaphylactic reactions (such as penicillin reactions); and</li> <li>3. To control life threatening inflammation of the lungs after a patient has inhaled vomitius (aspiration pneumonitis).</li> </ol>
<b>Caution</b>	Hydrocortisone sodium succinate injection is contraindicated in systematic fungal infections. Patients receiving this substance should not be vaccinated against small pox nor receive other immunizations. The medication should not be given to patients with ulcerated corneas,

- acute psychosis or a history of active or inactive tuberculosis except in life threatening situations. It should be used with caution in patients with a history of stomach ulcers or who are suffering from infections.
- Dosage** Obtain medical advice before using!!! Depends on type and severity of the condition. The dose may be as low as 20 mg. per day to suppress inflammation, or as high as 2.5 g. or more in severe shock. Administer I.M. or I.V.

### 52. *Hydrogen Peroxide Solution, 3%*

- Category** Oxydizing Agent, Germicidal
- Use** The use of hydrogen peroxide solution in an isolated environment is for the utilization of oxygen produced in the adjunct treatment of trench mouth (Vincent's infection) and in the cleansing of wounds. The effervescence caused by the release of oxygen permits the removal of tissue debris from inaccessible areas.
- Caution** Its use should be limited to initial cleaning as its is irritating to tissues and may interfere with healing. Hydrogen peroxide should never be instilled in a closed body cavity from which the gas formed cannot escape. Keep tightly closed in a cool place. Because it readily loses oxygen upon storage, it should be replaced at frequent intervals, at last every six months.
- Note** Continued use as a mouth wash may result in "Hairy" tongue.
- Dosage** As a mouth rinse, dilute with equal parts of water and use several times per day, especially after meals. The patient should be told to swish it vigorously in the mouth, then to expectorate. Topically, a 3% solution in water can be applied with sterile cotton directly to abrasions.

### 53. *Insect Repellent (Diethyltoluamide Solution)*

(Trade Names: 6-12, OFF)

- Category** Topical Insect Repellent
- Use** External Use Only!!! To repel mosquitoes, chiggers, flies, ticks, fleas and other biting insects. It can be used on clothing or the skin, protecting for up to eight hours.
- Caution** Do not apply near eyes, nose or mouth.
- Application** Shake several drops into the palm of one hand, rub hands together, and apply to the exposed skin and clothing in areas where insects are likely to bite through, such as over the shoulders, ankles, knees, and hips.

### 54. *\*\*Insulin Injection (Regular Insulin) U-100 (100 units per ml.)*

- Category** Antidiabetic
- Use** For treating diabetic acidosis or coma; and in combination with intermediate or long-acting insulins, to give better control of blood sugar levels after breakfast, dinner, or during the night.

**General Information** Insulin belongs to the group of medicines called hormones. It is made naturally by the body to help produce energy from the carbohydrates and sugars in food.

If the body does not make enough insulin to meet its needs, a condition known as diabetes mellitus (sugar diabetes) may develop. Eating the right foods along with proper exercise may control this condition. If not, insulin along with diet and exercise can help your keep your health in balance.

Insulin is made from beef or pork sources and many preparations contain a mixture of both, although one-source preparations are available.

**Caution** Keep under refrigeration, but not frozen. In case of an overdose, give the patient fruit juices or candy, and obtain medical advice by radio.

- Do not use insulin after the expiration date stated.
- Do not expose insulin to extremely hot temperatures.
- Do not shake the insulin bottle hard before using. Frothing or bubbles can cause an incorrect dose. Mix contents well by rolling the bottle slowly between the palms of the hands or by tipping the bottle end-to-end a few times.
- Do not use if contents look lumpy or grainy, or stick to the bottle.

**Adverse Reactions** Hypoglycemia is the most frequent untoward reaction to the administration of insulin. In patients who have never taken insulin, mild local reactions, such as erythema and stinging at the site of the injection occur frequently. Anaphylaxis is occasionally reported.

**Adult Dosage** There is no average dose. Regular insulin is seldom used to treat a well controlled diabetic. It has a short duration of action (5 to 8 hours), and several doses are required daily. Other insulin preparations with a longer duration of action, such as isophane insulin suspension (NPH), are used. Insulin preparations are usually injected under the skin. Regular insulin injection is the only form of insulin which may be administered intravenously. It is used, therefore, in emergencies, such as diabetic coma. **Medical advice, by radio, must be obtained!!!**

### 55. *Ipecac Syrup*

**Category** Oral Emetic

**Use** Ipecac appears to act centrally and locally to cause vomiting as an emergency measure when certain poisons have been ingested. It may take 15 to 30 minutes to have the desired effect.

**Caution** Ipecac should not be given when the poison is a corrosive acid, lye, or solvent such as mineral spirits or gasoline. In poisoning of any kind, medical advice should be obtained by radio.

**Adult Dosage** Give the patient 15 ml. (3 teaspoonfuls) by mouth followed by one or two glasses of water. Vomiting should start within a half hour. If vomiting does not occur in 30 minutes, the dose may be repeated once.

### 56. *Kaolin Mixture with Pectin*

(Trade Names: Kaopectate, Kao-con, Pargel)

**Category** Antidiarrheal

- Use** Kaolin, an absorbent, and pectin, a protectant. Kaolin is a natural hydrated aluminum silicate that supposedly absorbs large numbers of bacteria and toxins and reduces water loss. Pectin is a polyuronic polymer whose mechanism of action is unknown and which consists of purified carbohydrates extracted from citrus fruit or apple pomace. Used in the treatment of mild to moderate acute diarrhea.
- Caution** If diarrhea doesn't improve after 24 hours, medical advice should be obtained, by radio. Prolonged use of Kaolin with Pectin may cause rebound constipation.
- Adult Dosage** For simple diarrhea give four 15 ml. tablespoonsful as the first dose, then two 15 ml. tablespoonsful after each loose stool, or every four hours.
- Note** Shake bottle well before using.

### 57. **\*\*Lactated Ringer's Injection**

- Category** Injectible Isotonic Solution
- Use** Lactated ringer's injection is a balanced aqueous solution that contains: chloride, sodium, potassium, calcium, bicarbonate, and phosphate ions. Because of its composition and character, it is useful in replacing body salts and fluids due to excessive bleeding, burns, vomiting, or diarrhea. It substitutes for whole blood or plasma when these are not available.
- Caution** Before administering, obtain medical advice by radio. As with any injection, careful sterile procedures should be observed. Do not administer this or any I.V. solution unless it is clear and free of particles.
- Note** To prevent air from entering the vein, which could result in a fatal air embolism, do not allow the bottle to drain completely.
- Adult Dosage** Depends on the condition of the patient. The usual dose is 2,000 to 3,000 ml. per 24 hour period. Obtain medical advice by radio before using!!!

### 58. **\*\*Lidocaine Hydrochloride Injection, 1%** (Trade Name: Xylocaine HCl)

- Category** Local Anesthetic, Antiarrhythmic
- Use**
1. As a local anesthetic in minor surgical procedures, producing an anesthetic effect rapidly that may last from 1 to 1½ hours.
  2. As a topical anesthetic on broken skin and mucous membranes.
  3. For ventricular premature beats.
  4. For rapid heart action (tachycardia).
- Caution** Local anesthetics should not be used in patients with severe shock or heart block nor be injected into inflamed areas of the skin. The 2 ml. ampule contains no preservative; therefore, discard unused contents immediately.
- Resuscitative equipment and drugs should be immediately available when any local anesthetic is used. Before using preparation for cardiac indications **medical advice should be obtained by radio.**
- Adverse Effects** Locally administered produces adverse effects from excessive dosage, rapid absorption, or inadvertent intravascular injection. These are

central nervous system reactions which may be followed by drowsiness, convulsions, unconsciousness and possibly respiratory arrest.

**Adult Dosage** Dosage varies with the procedure and response of the patient. The smallest dose needed to produce the desired effect should be used (consult package insert). When using lidocaine HCl as a local anesthetic, inject slowly and with frequent aspiration to guard against intravascular injection. Obtain medical advice by radio before using!!!

### 59. *Lubricating Jelly*

(Trade Names: K-Y, Lubafax)

**Category** Sterile Lubricant

**Use** A lubricating jelly facilitates the insertion of rectal thermometers, catheters, and surgical instruments.

### 60. *Magnesium Sulfate (Epsom Salt)*

**Category** Laxative; Soaking Solution

**Use** 1. Orally, as a quick-acting laxative.  
2. Topically, as a hot wet dressing.

**Caution** Do not administer orally to a patient who has abdominal pain, (possible appendicitis)—obtain medical advice by radio.

For wet dressing, make a moderately hot solution.

**Adverse Effects** Strong hypertonic laxative dilutions are likely to be nauseating.

**Adult Dosage** As a laxative—for constipation, dissolve one tablespoon in  $\frac{1}{4}$  glass of water (ice water, orange or lemon juice is preferred to mask the salty taste) and give before breakfast.

For hot wet dressings and soaks in the treatment of bruises, sprains, and swollen joints, mix 1 pound with 1 pint of hot water and apply compresses moistened with the heated solution for 20 minutes every two hours. The solution should be kept just hot enough to permit handling without discomfort. Use two compresses applied alternately; this permits continuous application of heat. Another method is to soak the injured part for 20 minutes in a basin filled with the heated solution, repeat every 2 hours.

### 61. *Menthol Ointment, Compound*

(Trade Name: Analgesic Balm)

**Category** Topical Rubbing Compound

**Use** Applied topically, menthol ointment relieves muscle pain while at the same time providing some psychological benefit to the patient. When it is rubbed into the skin at the site of the discomfort, it produces a sensation of penetrating warmth.

**Note** For more effective relief of muscle pain, heat alone, from a hot water bottle, heating pad, or hot pack is suggested.

**Caution** Keep away from the eyes, mucous membranes, and irritated or inflamed skin. Do not apply heat on top of menthol compound ointment.

**Adverse Effects** Occasional skin irritation when there is sensitivity to the compound.

**Adult Dosage** Apply a small amount over the painful area and gently rub into the skin 3 or 4 times daily.

**62. \*\*Meperidine Hydrochloride Injection, 50 mg./ml., 1 ml.**

(Trade Name: Demerol)

- Category** Narcotic Analgesic
- Use** A centrally acting opioid analgesic having only agonist activity. Meperidine is for the relief of all types of moderately severe to severe pain. When injected, its effects are felt 10 to 20 minutes after administration and last for 2 to 4 hours. In general, it has all of the uses of morphine.
- Caution** Administer only when medical advice has been obtained by radio. Because it is potentially addictive, meperidine should not be used over long periods of time and the patient should be switched to a non-narcotic analgesic as soon as possible. Meperidine should be used with caution in situations where the use of morphine sulfate entails a risk (see package insert).
- Adverse Effects** These include dizziness, drowsiness, nausea, vomiting, and sweating, most commonly. Patients *should not be permitted to operate machinery* or unnecessarily expose themselves to hazards. The major hazards of meperidine administration are respiratory and circulatory depression.
- Dosage** Dosage should be adjusted according to the severity of the pain and response of the patient. The usual adult dose by I.M. injection is 50 to 100 mg. This dosage may be repeated in 3 to 4 hours. Obtain medical advice by radio before using!!!

**63. \*\*Metaraminol Bitartrate Injection, 10 mg./ml., 1 ml.**

(Trade Name: Aramine)

- Category** Sympathomimetic Amine
- Use** A potent sympathomimetic amine that increases both systolic and diastolic blood pressure primarily by vasoconstriction. Metaraminol injection acts to restore systolic and diastolic blood pressure that may have fallen seriously due to trauma, shock, hemorrhage, certain infectious diseases, or adverse reactions to drugs. Its effect begins within one or two minutes following I.V. administration, 10 minutes after I.M. injection and in 5 to 20 minutes after subcutaneous injection. Its effects last from about 20 minutes to one hour.
- Caution** Before using, obtain medical advice by radio. Use with extreme caution in patients with overactive thyroid, high blood pressure, heart disease or diabetes.
- Note** Over dosage may produce a sustained elevation of blood pressure and severe headache. Avoid unsuitable injection sites, as further tissue damage may result.
- Adult Dosage** The recommended dose I.M. or subcutaneously is 2 to 10 mg. (0.2 to 1 ml.). In the treatment of severe shock, intravenous injection of 15 to 100 mg. (1.5 to 10 ml.) in 500 ml. of sodium chloride injection or 5% dextrose injection, adjusting the rate of infusion to maintain the desired level of blood pressure. Intervals between doses should never exceed 10 minutes, so that a cumulative effect can be maintained. Obtain medical advice by radio before using!!!

64. *Milk of Magnesia*

<b>Category</b>	Antacid, Laxative
<b>Use</b>	Milk of Magnesia is used to relieve heartburn or acid stomach by neutralizing excess stomach acid. When used for this purpose, it is said to belong to the group of medicines called antacids. With larger doses than those used for antacid, Milk of Magnesia produces a laxative effect.
<b>General Information</b>	<i>Antacid</i> Reacts chemically to neutralize stomach acid resulting in increased pH value of stomach contents, providing relief of hyperacidity symptoms. <i>Laxative</i> Produces osmotic effect primarily in small intestine, drawing water into the intestinal lumen. Fluid accumulation produces distention, which in turn promotes increased peristalsis and bowel evacuation.
<b>Caution</b>	Milk of Magnesia, or any laxative, should not be given to a patient with abdominal pain, suggestive of appendicitis, without seeking medical advice by radio.
<b>Adverse Effects</b>	Ordinarily, absorbed magnesium ion is rapidly excreted by the kidney but in the event of impaired kidney function, magnesium buildup may cause neurological, neuromuscular, and cardiovascular impairment.
<b>Adult Dosage</b>	For stomach overacidity and heartburn, give one 5 ml. teaspoonful in $\frac{1}{4}$ of a glass of water up to 4 times a day. For laxative, give from 1 to 2 tablespoonsful once daily, as needed, follow with a glass of water.

65. *Mineral Oil (Liquid Petrolatum)*

<b>Category</b>	Skin Emollient, Protectant
<b>Use</b>	Mineral oil is used as a skin emollient and protective agent. It is useful for helping to remove ointments or creams from treated skin areas. It also has a place in emergency treatment following certain ingested poisons, including alkalis.
<b>Caution</b>	Mineral oil should not be used as a laxative as it may cause depletion of oil-soluble vitamins (A, D, E, and K).
<b>Dosage</b>	Can be applied liberally over skin areas.

66. **\*\*Morphine Sulfate Injection, 10 mg./ml., 1 ml.**

<b>Category</b>	Narcotic Analgesic
<b>Use</b>	A centrally acting opioid analgesic having only agonist activity. For severe pain not relieved by other analgesics. Discontinue as soon as the pain can be relieved by other drugs that can be given orally or less addicting.
<b>Note</b>	Obtain medical advice by radio, before using.
<b>Caution</b>	Morphine Sulfate is <i>contraindicated</i> : <ol style="list-style-type: none"> <li>1. When the respiratory rate has slowed to less than twelve (12) breaths per minute.</li> <li>2. When respiration is reduced and the lips and nail beds are blue.</li> <li>3. When mental dullness, unconsciousness, or coma are present, especially after head injury.</li> </ol>



4. For any uses other than herein recommended, except on the order of a physician.
- Adverse Effects** Drowsiness, sleep, prominent dreams, heightened feelings of well being ( or uneasiness, anxiety and fear).
- Adult Dosage** For the relief of severe pain following injuries or burns, and severe pain of sudden origin in the abdomen or chest, give 10 mg. I.M. If the pain is unrelieved, or if it recurs soon after the first dose, a second dose of 10 mg. I.M. may be given 1 hour or more later. Give a third and subsequent doses, if necessary, at intervals of at least 4 hours, not sooner. Obtain medical advice by radio before using!!!
- Note** *If the patient is to be transferred* within four hours after receiving morphine, note the time and dosage on a tag securely tied to the front part of the patients clothing.

67. **\*\*Naloxone Hydrochloride Injection, 0.4 mg./ml., 1 ml.**

(Trade Name: Narcan)

- Category** Narcotic Antagonist
- Use** Naloxone is a narcotic antagonist considered to be the drug of choice in reversing respiratory depression caused by narcotics, pentazocine (Talwin), propoxyphene (Darvon), or the narcotic antagonists levallorphan and nalorphine. When administered in the absence of these drugs, naloxone has no pharmacologic activity of its own. In addition, the medication does not increase respiratory depression caused by other central nervous system depressants. Also indicated for the diagnosis of suspected acute opiate overdose.
- Caution** Obtain medical advice by radio to determine if the use of naloxone does not preclude the use of other resuscitation measures when indicated. These include maintenance of an adequate airway, artificial respiration, and cardiac massage. Naloxone is not effective in the treatment of respiratory depression caused by non-narcotic drugs; namely—alcohol, barbiturates such pentobarbital and phenobarbital, and paraldehyde. Naloxone should be administered with extreme care if given I.V. Naloxone should not be given when advanced organic disease is present.
- Adult Dosage** The usual dose, subcutaneously, I.M., and I.V. is 0.4 mg. repeated every 2 or 3 minutes until a favorable response is achieved. (If no response occurs after 2 or 3 doses, another cause of the respiratory depression should be suspected.) Obtain medical advice by radio before using!!!
- Note** I.V. injection is for *immediate life threatening* emergency need only.

68. **Nitroglycerin Tablets, 0.4 mg.**

(Trade Name: Nitroglyn, Nitrostat)

- Category** Antianginal Agent
- Use** For the prevention and treatment of chest pains associated with angina pectoris. Nitroglycerin belongs to the group of medicines called nitrates. It is used to improve the supply of blood and oxygen to the heart.

- Caution** Nitroglycerin is a volatile substance. Tablets lose potency when exposed air, excessive heat, or moisture. Store tablets in the original bottle (do not transfer to another bottle) and keep tightly capped. Store bottle in a relatively cool place. If the bottle is opened during a voyage, the tablets should be replaced upon return to port.
- Note** Before using, remove the cotton plug that comes in the bottle and *do not* put it back. Put the cap on the bottle quickly and tightly after each use. Do not take with alcohol.
- Adverse Effects** Nitroglycerin may cause flushing of the face and headache, which can be relieved by reducing the dose or taking an analgesic such as aspirin. Postural hypotension may develop, therefore the patient is advised to take the medication sitting down.
- Adult Dosage** Take one 0.4 mg. ( $\frac{1}{150}$  gr.) tablet completely dissolved (do not swallow tablet) under the tongue at the onset of chest pain usually provides complete relief in 1 to 3 minutes. The drug may be given hourly up to several times a day without harm.

### 69. Oxygen

- Category** Therapeutic Gas
- Use** Oxygen is a gas that constitutes 20% of ordinary air and is necessary to maintain life. At times it has to be supplemented or replaced. The need to augment oxygen-deficient blood and tissues is signaled by cyanosis (bluish lips and nail beds). Oxygen is given in dyspnea (labored breathing), rapid, thready pulse, and restlessness. Oxygen may be indicated in respiratory and cardiac disorders, inhalant poisoning, massive hemorrhage, and shock.
- Caution** Oxygen use presents an explosion hazard. The immediate area must be freed of smoking, open flame, electrical devices and/or those which may cause a spark; combustibles, and inflammable liquids, such as alcohol and ether.
- Oxygen is compressed and marketed in steel or aluminum cylinders that are fitted with reducing valves for the delivery of the gas. Because it is under considerable pressure, the tanks must be handled carefully so as to prevent their falling or bumping into each other or into anything that may cause undue jarring. No open flames or smoking in area of administration.
- Adverse Effects** Because of certain physiological reactions to the concentration and pressure of inhaled oxygen, such reactions as collapsed lung, respiratory arrest, retinal damage, oxygen poisoning, and central nervous system effects, such as muscular twitching, nausea, vertigo, mood changes, abnormal sensations, loss of consciousness, and convulsions may occur.
- Adult Dosage** The usual adult dose is 6 to 8 liters per minute by mask, or 5 to 6 liters per minute by nasal catheter.

### 70. \*\*Paraldehyde

- Category** Anticonvulsant; Hypnotic; Sedative
- Use** Paraldehyde is taken by mouth to treat nervous and mental conditions. It is used to calm or relax patients who are nervous or tense and to

- produce sleep. Aboard ship, paraldehyde is used primarily for alcohol withdrawal symptoms such as delirium tremens (DT's), where a hypnotic rather than a sedative effect is desired.
- Note** Delirium may take the form of fairly mild agitation in which the patient merely mutters to himself for hours or it may take the form of violent, noisy behavior.
- Caution** Paraldehyde is not recommended to be used by injection. On exposure to light and air, paraldehyde decomposes into a toxic substance. Store in a refrigerator in a tight, light-resistant container. Discard the unused contents of any container that has been opened for more than 24 hours.
- Note**
1. Do not use if liquid turns brownish color or if it has a strong vinegar-like odor.
  2. Do not use a plastic spoon, plastic cup, or any other plastic container to take this medicine—use a metal spoon or glass container.
  3. Take medication mixed in a glass of milk or iced fruit juice—to improve the taste and odor and to lessen stomach upset.
  4. Avoid alcoholic beverages.
- Adverse Effects** In large doses the drug produces respiratory depression and hypotension.
- Adult Dosage** *Alcohol withdrawal*—Paraldehyde is usually given orally in doses of 5 to 10 ml. (1 or 2 teaspoonsful), every 4 to 6 hours up to a maximum of 60 ml. (12 teaspoonsful) the first 24 hours; then 5 to 10 ml. every 6 hours up to a maximum of 40 ml.'s on the following days. **Obtain medical advice by radio before using!!!**
- Note**
1. Paraldehyde usually produce sleep within 15 minutes. The duration of action is about 8 hours.
  2. Following prolonged administration, paraldehyde should be withdrawn gradually in order to avoid the possibility of precipitating withdrawal symptoms.

**71. \*\*Penicillin G, Procaine, Sterile Suspension, Injection, 600,000 Units/ml., 1 ml.**  
(Trade Names: Crysticillin A.S., Wycillin)

- Category** Antibiotic
- Use** Penicillins belong to the general family of medicines called antibiotics. They are given by mouth or by injection to help the body overcome infections. Penicillins are bactericidal antibiotics which inhibit bacterial cell wall synthesis.
- There are two kinds of penicillins:
1. Penicillinase-sensitive (ampicillin; penicillin-G; and Penicillin-V, and others).
  2. Penicillinase-resistant (cloxacillin; methicillin, oxacillin and others).
- Each is used to treat different kinds of infections. One kind of penicillin usually may not be used in place of the other. Neither kind is effective in treating virus infections such as the common cold.
- Note** Medical advice by radio needs to be obtained before administering. For general information on usage and dosage, consult the package insert. Dosage varies with the disease being treated.

<b>Caution</b>	Penicillin should not be administered to patients with known hypersensitivity to the drug lest an anaphylactic (allergic) reaction occur which can take place rapidly and lead to death. Before administering the drug, determine, if possible, if the patient is allergic to it. If so, obtain medical advice by radio on alternative anti-infective treatment.
<b>Adverse Effects</b>	Hypersensitivity reactions reported, in addition to anaphylactic reaction, skin reactions, chills, fever, edema, arthralgia, and prostration.
<b>Adult Dosage</b>	Dosage varies with disease being treated. Consult package insert. Administer by deep I.M. injection, which will yield adequate blood levels for 12 to 24 hours for most susceptible organisms. Preferred injection site is in the inner aspect of the upper outer quadrant of the buttock. For repeated injections, alternate buttocks. Before injecting, pull back on the syringe plunger to make sure that the needle point does not lie within a blood vessel. If blood appears, remove needle and discard syringe and needle. Prepare a new dose and repeat the procedure at another site. Obtain medical advice by radio before using!!!
<b>Note</b>	An anaphylactic reaction emergency kit should be close at hand whenever injection is given.

**72. \*\*Penicillin G, Procaine, Sterile Suspension Injection, 2,400,000 Units/4 ml.**

<b>Category</b>	Antibiotic
<b>Use</b>	For uncomplicated gonorrhea in the male or female.
<b>Caution</b>	Same as No. 71 (Penicillin G)
<b>Adult Dosage</b>	Administer, on radio advice of a physician, 4.8 million units divided into at least two doses, injected I.M. at different sites. This dose should be accompanied by 1 gram (two 500 mg. tablets) of oral probenecid, preferably given at least 30 minutes prior to the penicillin injections. Obtain medical advice by radio before using!!!
<b>Special Note</b>	Spectinomycin may also be used for treatment of gonorrhea.

**73. \*\*Penicillin V Potassium Tablets, 250 mg.**

(Trade Name: Lederillin-VK, Pen-Vee-K, V-Cillin-K)

<b>Category</b>	Antibiotic
<b>Use</b>	Penicillin VK differs from penicillin G in that it is better absorbed by the gastrointestinal tract. Available only for oral administration, it is not a substitute for injectible penicillin.
<b>Caution</b>	Same as No. 71 (Penicillin G)
<b>Note</b>	Penicillin VK should not be given at the same time as one of the bacteriostatic antibiotics such as erythromycin and tetracycline, which may diminish the effectiveness of the Penicillin VK.
<b>Adult Dosage</b>	Give on medical advice by radio. Usually, an initial dose of two 250 mg. tablets should be given by mouth followed by one 250 mg. tablet every 6 hours. Obtain medical advice by radio before using!!!
<b>Special Note</b>	It takes 7 to 10 days for Penicillin VK to be effective against most susceptible organisms.

Penicillin VK is best absorbed on an empty stomach. It can be taken 1 hour before or 2 hours after meals.

**76. Petrolatum, White (White Petrolatum Jelly)**

- Category** Topical Emollient  
**Use** A bland, neutral protective dressing for application to minor burns, abrasions, or dry skin.  
**Adult Dosage** Apply freely to the skin.

**77. \*\*Phenobarbital Tablets, 30 mg.**

(Trade Name: Luminal, Solfoton)

- Category** Hypnotic; Sedative; Anticonvulsive  
**Use** Epileptic seizures, convulsions; as an anticonvulsive or daytime sedative; as a mild hypnotic (sleeping medication); and for eclampsia (toxemia of pregnancy).  
**General Information** Phenobarbital, like the other barbiturates, appears to act by interfering with nerve impulses to the brain. When used as an anticonvulsive, phenobarbital is not very effective by itself, but when used in combination with anticonvulsive agents such as phenytoin (No. 79), the action of both the phenobarbital and the phenytoin is dramatic. This combination has been very successfully to control epileptic seizures.

Phenobarbital provides relatively prolonged sedation in some anxiety and tension states, hypertension, heart disorder, and gastrointestinal disorders.

- Caution** Phenobarbital may slow down your physical and mental reflexes, so you must be extremely careful when operating machinery. Long-term use may cause addiction. Elderly patients on phenobarbital exhibit nervousness and confusion at times.

- Note** Barbiturates are neutralized in the liver and eliminated from the body through the kidneys; consequently, people who have liver disorders or kidney disorders—namely, difficulty in forming or excreting urine—should be carefully monitored.

- Side Effects** Difficulty in breathing, skin rash, and general allergic reactions such as runny nose, watering eyes, and scratchy throat.

- Adverse Drug Effects** Drowsiness, lethargy, dizziness, hangover, nausea, vomiting, and diarrhea. More severe reactions may include anemia and yellowing of the skin and eyes.

- Note** Do not take with alcohol, tranquilizers or other sedatives. Do not take with anticoagulants.

- Adult Dosage** As a sedative, one 30 mg. tablet, one to four times daily. For sleep, 90 mg. (3 tablets) at bedtime.

For controlling seizures, the dose must be adjusted to determine the smallest effective dose. The average adult range is between 50 and 120 mg. daily. Obtain medical advice by radio before using!!!

**78. Phenylephrine Hydrochloride Nasal Spray, 0.25%**

(Trade Names: Alconefrin 25, Neo-Synephrine Hydrochloride, Sinarest Nasal Spray)

- Category** Nasal decongestant  
**Use** Phenylephrine hydrochloride temporarily relieves nasal congestion,

	helps breathing easier in colds and hay fever, and temporarily relieves nasal congestion associated with sinusitis.
<b>Caution</b>	Do not exceed recommended dosage and do not use longer than 3 days. Do not allow more than one person to use the same spray bottle. Always hold bottle upright to spray.
<b>Adverse Reactions</b>	Usually do not occur when precautions are heeded.
<b>Adult Dosage</b>	Spray once or twice into each nostril with head up. For best results, repeat in a few minutes if necessary. May be used every 3 or 4 hours as needed.

**79. \*\*Phenytoin Sodium Capsules, 100 mg.**

(Formerly Diphenylhydantoin Sodium; renamed in 1975)

(Trade Name: Dilantin Sodium)

<b>Category</b>	Anticonvulsant
<b>Use</b>	Phenytoin is an anticonvulsant drug that can be useful in the prevention and treatment of epileptic seizures (especially grand mal and psychomotor). It can reduce their severity and frequency. Phenytoin is often used with phenobarbital and other anticonvulsant agents.
<b>Caution</b>	Abrupt withdrawal of phenytoin in epileptic patients can result in status epilepticus. Dosage should be reduced slowly, as the physician sees fit. Drugs that control grand mal seizures are not effective in petit mal seizure which requires combined drug therapy.
<b>Adverse Reactions</b>	Side effects include failure of muscular coordination, visual difficulty skin eruption, swelling of gums, and gastrointestinal upset. Reactions usually are mild and do not interfere with therapy, if dosage is properly adjusted. However, more severe reactions may occur that involve the liver and bone marrow.
<b>Adult Dosage</b>	One 100 mg. capsule 3 times a day after meals or with a snack. Response to the drug may not begin for a week or more; take precautions in the event of seizures during that time. Obtain medical advice by radio before using!!!
<b>Special Information</b>	If you get an upset stomach after taking phenytoin, take the medicine with meals. If you develop a rash, sore throat, fever, unusual bleeding, or bruising—seek medical advice. Phenytoin sometimes produces a pink-brown color in the urine; don't worry about it.

**80. \*\*Pilocarpine Hydrochloride Eye Drops, 2%**

(Trade Name: Isopto Carpine 2%, Pilocar 2%)

<b>Category</b>	Antiglaucoma Agent
<b>Use</b>	Pilocarpine is kept on board for those glaucoma patients who might run out of their medication. It acts to reduce dilation of the pupil caused by glaucoma and to restore near vision focus.
<b>Caution</b>	To prevent contamination of the medication during administration, keep the tip of the eye dropper or drops container from touching the eye or surrounding areas.
<b>Adverse Reactions</b>	If exaggerated parasympathetic symptoms should occur from overdose, injectible atropine will reverse these side effects.
<b>Adult Dosage</b>	For glaucoma, 2 drops in the eye every 6 hours daily or as prescribed. Obtain medical advice by radio before using!!!

**81. Polymyxin B-Neomycin-Bacitracin Eye Ointment**

(Trade Names: Mycetracin Ophthalmic Ointment, Neo-Polycin Ophthalmic Ointment, Neosporin Ophthalmic Ointment)

<b>Category</b>	Ophthalmic anti-infectant
<b>Use</b>	This ointment is indicated in the short-term treatment of superficial external eye infections, such as inflammation of the tear ducts, caused by organisms susceptible to one or more of the antibiotic in the preparation. It may also be used in the prevention of eye infection when an adjacent injury renders the eye vulnerable to an infection. The eye ointment is often used in conjunction with polymyxin B-neomycin gramicidin eye drops for treatment at night. If the eye infection does not improve in 24 hours, medical advice by radio should be obtained.
<b>Caution</b>	Take care to prevent the tip of the dispensing tube from touching the eyelid or surrounding areas to prevent contamination of the medication.
<b>Adverse Reactions</b>	Because prolonged use of the medication may result in overgrowth of nonsusceptible organisms, including fungi, the period of treatment should be limited.
<b>Adult Dosage</b>	Instill ointment every 3 to 4 hours, depending on the severity of the infection.

**82. Polymixin B-Neomycin-Gramicidin Eye Drops**

(Trade Names: Neo-Polycin Ophthalmic Solution, Neosporin Ophthalmic Solution)

<b>Category</b>	Ophthalmic anti-infective
<b>Use</b>	This ophthalmic solution is for the short-term treatment of superficial external eye infections, inflammation of the eyelids and tear sacs. It is also for the prevention of eye infection when an injury renders the eye or adjacent area vulnerable to infection. If the eye infection does not improve in 24 hours, medical advice by radio should be obtained for possible alternate therapy.
<b>Caution</b>	To prevent contamination of the medication, keep the tip of the eye-dropper or container from touching any parts of the eye or surrounding area.
<b>Adverse Reactions</b>	Prolonged use may result in an overgrowth of nonsusceptible pathogenic organisms, including fungi.
<b>Adult Dosage</b>	Dosage and frequency will vary depending on the severity of the infection. The suggested dose is one or two drops, 2 to 4 times daily, used in conjunction with the polymixin B-neomycin-bacitracin eye ointment applied at bedtime. In acute infections, initial therapy should be one or two drops every 15 to 30 minutes, reducing the frequency as the infection is controlled.

**83. Povidone-Iodine Solution, Scrub and Skin Cleanser**

(Trade Names: Betadine, Isodine)

<b>Category</b>	Skin disinfectant, cleanser
<b>Use</b>	For use whenever topical germicidal and cleansing action is required.

	May be used by sickbay personnel for preoperative and postoperative scrubbing and washing. It is effective as a degerming agent for preparing the patient's skin and for preventing and treating acute inflammatory skin infections. Povidone-iodine combination product forms a rich lather which is readily water washable from skin and natural fabrics.
Caution	For external use only.
Adverse Reactions	Poisonous if ingested. Institute antidote treatment.
Adult Dosage	Wet the skin and apply a sufficient amount to work up a rich lather. Allow the lather to remain a few minutes and rinse the area with clean water. Repeat this procedure 2 or 3 times a day.

**84. Povidone-Iodine Solution, 1%**  
(Trade Name: Betadine)

Category	Topical antiseptic
Use	Povidone-iodine solution is effective as a topical antiseptic or germicidal solution applied to the skin or mucous membranes to prevent and control susceptible skin infections, certain infections of the mouth and scalp, and for preoperative preparation of the skin. This preparation affords the broad range germicidal (microbial) action of iodine without the undesirable features inherent in its tincture. Unlike the tincture, it can be bandaged or taped without fear of burning the skin.
Caution	For external use only.
Adverse Reactions	Local hypersensitive reactions occur rarely. These are noted primarily in patients sensitive to iodine. If accidentally ingested, administer antidote treatment.
Adult Dosage	Apply full strength as often as needed to the skin or mucosal areas by painting, swabbing, or as a wet soak. This solution does not cause stinging or irritation when applied.

**85. \*\*Prednisolone Sodium Phosphate Eye Drops, 1%**  
(Trade Name: Inflamase Forte)

Category	Ophthalmic solution
Use	Prednisolone eye drops are for emergency use where there has been injury to the eye or eyelid resulting from a thermal or chemical burn. The eye should first be examined for injury to the cornea with the aid of fluorescein strips.
Caution	For use only on medical advice, including number of treatment days, by radio. Several times a day the eyelids should be opened widely with the fingers to prevent scars forming between the eyelid and the white of the eye. Contraindicated in the treatment of infectious conditions such as tuberculosis, fungal, viral (herpes simplex), and pus-forming infections of the cornea and eyelid.
Adverse Reactions	Repeated use in the eye for prolonged periods can result in cataract formation and increased intraocular pressure.
Adult Dosage	Initially, place 1 or 2 drops in the eye every hour during the day and every 2 hours during the night, until improvement occurs. Thereafter,



1 or 2 drops, 2 to 4 times daily, for a limited period of time. Obtain medical advice by radio before using!!!

**86. \*\*Probenecid Tablets, 500 mg.**  
(Trade Name: Benemid)

<b>Category</b>	Antigout; Increase blood levels
<b>Use</b>	As an adjunct to intensive therapy with penicillin-G, with ampicillin, and a number of other penicillins, for prolonging the effective blood concentrations of these drugs. Also, it is used to promote the elimination of uric acid in the treatment of gout and gouty arthritis.
<b>Note</b>	Probenecid is included in the standard list of medications because it is used with injectable or oral penicillins in the treatment of uncomplicated gonorrhea.
<b>Adverse Reactions</b>	Probenecid is well-tolerated, but occasionally patients may experience nausea. Rarely, sensitivity may result in a skin rash.
<b>Adult Dosage</b>	Generally, one 500 mg. tablet, two to four times a day. For its use in the treatment of uncomplicated gonorrhea, see drug monographs on penicillin VK or penicillin G injection. Obtain medical advice by radio before using!!!

**87. \*\*Proparacaine Hydrochloride, Eye Drops, 0.5%**  
(Trade Name: Ak-taine, Ophthaine)

<b>Category</b>	Ophthalmic Anesthetic
<b>Use</b>	To produce surface anesthesia of the eye, if necessary, for removal of a foreign body. This drug has a rapid onset (within 20 seconds), but short duration of action (about 15 minutes).
<b>Caution</b>	Because the solution discolors when exposed to warm temperatures, it should be kept in the refrigerator. Replace opened bottle at the start of each voyage. Check unopened bottles for discoloration. Do not use a discolored (brownish) solution. The patient should be warned <b>not</b> to rub the eye for at least 30 minutes after instilling, as it may injure the cornea of the eye.
<b>Adult Dosage</b>	One or two drops instilled in eye two or three minutes before beginning the procedure. Obtain medical advice by radio before using!!!

**88. \*\*Pyrimethamine Tablets, 25 mg.**  
(Trade Name: Daraprim)

<b>Category</b>	Adjunct to antimalarial therapy
<b>Use</b>	Pyrimethamine may be used in conjunction with chloroquine for suppressive prevention of malaria in areas where plasmodium malariae parasites are not resistant to it. Pyrimethamine may also be used in conjunction with other antimalarial agents, such as quinine, against plasmodium falciparum, a malarial parasite.
<b>Caution</b>	Obtain medical advice by radio before starting anyone on this medication.

- Adverse Reactions** Side effects from the recommended doses are few, but toxicity increases substantially with larger doses. Loss of appetite, nausea, vomiting, and suppression of blood cell formation may occur with larger doses over a prolonged period.
- Adult Dosage** For malaria prophylaxis, along with chlorquine phosphate, one 25 mg. tablet pyrimethamine once weekly on the same day of the week. Check company malaria prophylaxis policy. **Obtain medical advice by radio before using!!!**

**89. \*\*Quinine Sulfate Capsules, 300 mg.**

- Category** Antimalarial
- Use** Quinine is effective in the treatment of acute attacks of malaria (even that caused by some strains of *P. falciparum*). Quinine is not administered to prevent infection but to keep plasmodium parasite in check so that clinical symptoms do not develop. If the drug is stopped, symptoms of the disease may reappear. A combination of quinine sulfate and pyrimethamine may be effective in reducing recurrences of certain *Plasmodium falciparum* infections.
- Caution** Obtain medical advice by radio before starting treatment.
- Adverse Reactions** May produce toxic symptoms such as ringing in the ears or a sensation of fullness in the head. Larger doses may cause hearing difficulty or deafness. There may be severe headache, flushed skin, disturbed vision, profuse sweating, abdominal pain, nausea, vomiting, diarrhea, delirium, convulsions, and collapse.
- Adult Dosage** For acute malarial attacks, two 300 mg. capsules every 8 hours, for 10 to 12 days. For infections caused by *plasmodium falciparum* (resistant to chloroquine) a combination of quinine and pyrimethamine 50 mg. daily for 3 days may be used to prevent recurrences. Take this medicine after meals or with a snack to lessen possible upset stomach. **Obtain medical advice by radio before using!!!**
- Special Note**
1. Do not take with aluminum-containing antacids.
  2. Do not take with oral anticoagulants.
  3. Do not take with quinidine.
  4. Do not take with urinary alkalizers, especially acetazolamide (#2) and sodium bicarbonate.

**90. \*\*Sodium Bicarbonate Injection, 3.75 g.  
(44.6 milliequivalent [mEq], 50 ml. Ampule)**

- Category** Buffer in acute metabolic acidosis
- Use** This injectible form of sodium bicarbonate is used to combat acute metabolic acidosis that may develop in uncontrolled diabetes or following cardiac arrest. For more details consult the package insert accompanying the container.
- Caution** This form of the compound should only be used on radio advice of a physician. The potentially large amounts of sodium being given with bicarbonate require that caution be exercised in the use of sodium bicarbonate in patients with congestive heart failure. The addition of sodium bicarbonate to infusions containing calcium salts, such as

	lactated Ringer's injection, should be avoided. A haze may result, indicating an incompatibility from the sodium bicarbonate-calcium admixture.
<b>Adverse Reactions</b>	Consult the package insert.
<b>Adult Dosage</b>	The physician who is contacted will determine the dosage and method of administration. <b>Obtain medical advice by radio before using!!!</b>
<b>Caution</b>	An anaphylactic reaction emergency kit should be close at hand whenever an injection is given.

### 91. *Sodium Bicarbonate Powder (Baking Soda)*

<b>Category</b>	Topical soothant, in paste or solution
<b>Use</b>	A soothing paste of sodium bicarbonate and water, when applied to insect bites and stings, brings cooling relief from localized inflammation and reduces itching and other discomfort. Weak solutions of sodium bicarbonate powder are used frequently as irrigants and washes.
<b>Caution</b>	Do not use in solution as an antacid for heartburn and gastric overacidity. Duration of action is brief and excessive use may produce metabolic alkalosis.

### 92. *Sodium Biphosphate and Sodium Phosphate Solution for Enema* (Trade Names: Enemeez, Fleet Enema)

<b>Category</b>	Enema preparation
<b>Use</b>	This prepackaged enema solution in a dispenser bottle can be used effectively when a cleansing enema is desired or to assist in eliminating fecal impaction.
<b>Caution</b>	Neither this nor any other enema preparation should be administered when abdominal pain, nausea, vomiting, cardiac arrest, severe dehydration or debility are present.
<b>Adverse Reactions</b>	Consult labeling.
<b>Adult Dosage</b>	The prepackaged rectal unit is ready for use. Have patient lie on left side with knees flexed or brought to chest. Remove container cover and gently insert the prelubricated tube into the rectum, slowly squeeze contents of the bottle (135 ml. or 4½ fluid ounces). Patient's position should be maintained until a strong urge to empty the bowel is felt, usually within 2 to 5 minutes.

### 93. *\*\*Sodium Chloride Injection, 0.9%, 100 ml.*

<b>Category</b>	Intravenous electrolyte solution
<b>Use</b>	Sodium chloride is the single most important salt for replacing deficits of extracellular fluid. Intravenously administered, it is used to replace chloride and sodium loss that occurs in extensive vomiting or diarrhea. It is for maintenance of extracellular fluid and for diluting other drugs.

- Caution** Before administering, obtain medical advice by radio. As with any injection, sterile procedures should be observed. Do not administer any intravenous solution unless it is clear and free of particles. Observe the solution carefully while it is being administered.
- Adult Dosage** Depending on the patient's condition, generally 1500 to 3000 ml. may be given over 24 hours. Do not give intravenous solutions at a faster rate than 500 ml. per hour, except on medical advice by radio.
- Note** An anaphylactic reaction emergency kit should be close at hand whenever an injection is given.
- To prevent air from entering the vein which could result in a fatal air embolism, do not allow the bottle to drain completely.

*94. Sodium Chloride Tablets, 1 g.*

- Category** Salt tablets
- Use** In excessive perspiration due to heat, ingestion of sodium chloride tablets is helpful in replacing body salts, to avoid heat exhaustion, heatstroke, and heat cramps.
- Adult Dosage** Depends on the amount of perspiration. For profuse sweating, give one tablet with a full glass of water, every 4 hours during working hours. If weather is hot, but perspiration is not excessive, give one tablet with a full glass of water every 8 hours while awake.

*95. Sulfadiazine Silver Cream, 1%*

(Trade Name: Silvadene Cream)

- Category** Topical Antimicrobial
- Use** Sulfadiazine silver is a soft white cream that spreads easily and can be washed off readily with water. When applied to second and third degree burns, it aids in the prevention and treatment of infection. Sulfadiazine silver has broad antimicrobial activity. It is bactericidal for many gram-positive and gram-negative organisms.
- Note** In all cases of severe burns, pain and shock should be controlled and medical advice sought immediately.
- Caution** If hepatic and renal functions become impaired and elimination of the drug decreases, accumulation may occur and discontinuance of the drug must be weighed against its therapeutic value.
- Adverse Reactions** Local or systemic adverse reactions to the drug may occur. Pain, burning or itching following application have been most frequently reported. Medical advice by radio should be sought to determine whether the drug should be discontinued.
- Adult Dosage** Sulfadiazine silver, 1% cream should be applied to cleansed, burned areas once or twice a day to a thickness of  $\frac{1}{16}$ " using a sterile gloved hand. Burned areas should be covered with the cream at all times, and dressings are usually not required. Treatment with sulfadiazine silver cream should be continued as long as there is a possibility of infection or until the patient can be evacuated, unless a significant adverse reaction occurs.

96. **\*\*Sulfisoxazole Tablets, 500 mg.**

(Trade Names: Gantrisin, SK-Soxazole)

<b>Category</b>	Urinary Anti-infective
<b>Use</b>	Sulfisoxazole is indicated for acute, recurrent, or chronic urinary tract infections, primarily cystitis, pyelitis, and pyelonephritis due to organisms susceptible to the drug.
<b>Caution</b>	Not for use in patients with hypersensitivity to sulfonamides. Cannot be done on vessel. Should be given with caution to patients with impaired renal or hepatic function, severe allergy, or bronchial asthma. Adequate fluids must be given.
<b>Adverse Reactions</b>	Toxic reactions, which rarely occur, include skin rashes, itching, fever, nausea, vomiting, headache, dizziness, depression, moderate to extreme reduction in urinary volume, blood in urine, and jaundice. If any of these appear, stop the drug and seek medical advice by radio.
<b>Adult Dosage</b>	Give only after medical advice and dosage by radio. Initially: 2 to 4 gm. Maintenance: 4 to 6 doses/24 hours, until temperature is normal for 48 hours. Give each dose with a full glass of water. Obtain medical advice by radio before using!!!
<b>Note</b>	<ol style="list-style-type: none"> <li>1. Do not take with an anticoagulant drug.</li> <li>2. Avoid large doses of vitamin C.</li> <li>3. Bactrim—both as a substitute/addition to Gantrisin, as well as for treatment of unresponsive traveler's diarrhea (not for prophylaxis of same).</li> </ol>
<b>Special Information</b>	<p>Sulfisoxazole can cause photosensitivity—a severe reaction to strong sunlight. Avoid prolonged exposure.</p> <p>Sore throat, fever, unusual bleeding or bruising, rash, and feeling tired are early signs of serious blood disorders—seek medical advice by radio.</p>

97. **Sunscreen Preparations**

<b>Category</b>	Sunburn Preventive
<b>Use</b>	Sunscreen preparations help to block out varying degrees of the sun's ultraviolet radiation, which causes sunburn. Prolonged or excessive exposure to the sun without protection may cause disabling episodes of sunburn and, in time, can lead to skin cancer.

No sunscreen preparation is totally effective. To avoid injury from the sun, exposed skin must be covered with appropriate clothing. Where uncovered skin is subject to the sun's rays, either directly or by reflection from the water, an effective sunscreening preparation should be applied to exposed skin prior to and during periods of sunlight.

A number of effective sunscreening preparations are commercially available. When selecting such a preparation, it is important to know the sunscreening ingredient contained therein and its effectiveness.

An alcoholic solution of para-aminobenzoic acid (PABA) or its esters (salts), such as a formulation of 5% PABA in an alcohol solution (50% to 70%), is one of the most effective sunscreening formulations. The group of chemicals, benzophenones, is also effective.

- Caution** In some individuals, the chemicals in sunscreen preparations may cause burning and redness in the area of application. If this occurs, the preparation should be discontinued immediately.
- Adult Dosage** Sunscreen preparations should be applied according to the directions on the label.

### 98. *Talcum Powder*

- Category** Body Powder
- Use** Talcum powders containing lubricants and protectants, and used as dusting powders are particularly appropriate for such skin irritations as chafing and prickly heat.
- Caution** Do not use as a lubricant for hands or gloves during even minor surgery. Any talc entering surgical incisions, wounds, or certain body cavities may cause granuloma formation.

### 99. *\*\*Tetanus Immune Human Globulin, 250 units*

(Trade Names : Gamatet, Homo Tet, Immu-tetanus, T-I-Gammagee)

- Category** Tetanus immunization
- Use** To provide passive immunity to tetanus in a patient who has sustained a potentially contaminated wound (such as puncture, anaerobic wound), and is lacking active immunization (with adsorbed toxoid).
- Caution** Place in refrigerator, but avoid freezing.
- Adverse Reactions** Side effects following intramuscular administration are infrequent, mild, and usually confined to the injection area.
- Adult Dosage** For passive immunization, 250 units by intramuscular injection only. If active immunization with adsorbed tetanus toxoid cannot be established, give a dose of tetanus immune human globulin, and a booster dose of 0.5 ml. adsorbed tetanus toxoid at the same time in a different extremity with a separate syringe.
- If the patient has received a booster dose or full basic series within the past 12 months, do not give either the toxoid or the tetanus immune human globulin. Obtain medical advice by radio before using!!!
- Note** Although systemic reactions are rare, an anaphylactic reaction kit should be close at hand.

### 100. *\*\*Tetanus Toxoid, Adsorbed*

- Category** Tetanus Immunization
- Use** For active immunization against tetanus.
- Caution** Store in the refrigerator, but avoid freezing. This preparation should not be used for the protection of an exposed person who has not been actively immunized previously against tetanus, nor for the treatment of a patient who has tetanus.
- Adverse Reactions** Severe reactions to the toxoids are rare; some local soreness and redness may persist for two or three days.

**Adult Dosage** For primary immunization of adults and children over six years of age, three doses (see package insert for amount of each dose) are required. These are injected intramuscularly into the lateral aspect of the upper arm. The second dose is given 4 to 6 weeks after the first; and the third dose six months to one year after the second. Thereafter, the recommended dose is administered every 10 years.

In wound management it is not necessary to give booster injections more often than every 5 years. If a dose is given as a part of wound management, the next routine dose to maintain ability to react promptly to a booster injection of Tetanus Toxoid will not be needed for another 10 years.

**Note** An anaphylactic reaction emergency kit should be close at hand whenever an injection is given.

**101. \*\*Tetracycline Hydrochloride Capsules (or Tablets), 250 mg.**

(Trade Names: Achromycin, Cyclopar, Panmycin, Sk-tetracycline)

**Category** Antibiotic

**Use** For susceptible infections

**Caution** Therapy should not be prolonged lest it may result in superinfection of the colon with non-susceptible bacteria and yeast. Photosensitivity reaction may occur when exposed to sunlight for long periods of time.

**Adverse Reactions** The drug may produce loss of appetite, nausea, vomiting, bulky loose stools, and diarrhea in some patients.

**Adult Dosage** Obtain medical advice by radio before administering. Usually, one 250 mg. capsule (or tablet) every 6 hours. In severe illness, increase to two 250 mg. capsules every 6 hours. Because food interferes with absorption of tetracycline, the drug should not be given orally less than one hour before meals, or sooner than two hours after meals. Tetracycline should not be administered with milk, or calcium-containing foods. Antacids containing aluminum, magnesium, or calcium also will impair absorption of tetracycline from the gastrointestinal tract, and should not be given with tetracycline. Obtain medical advice by radio before using!!!

**Note** 1. Do not take with bactericidal agents such as penicillin.

2. Do not take with multivitamin preparations containing minerals.

**Special Information** Do not take after the expiration date on the label. The decomposition of tetracycline produces a highly toxic substance which can cause serious kidney damage.

**102. Tolnaftate Powder, 1%**

(Trade Name: Tinactin)

**Category** Topical antifungal

**Use** Tolnaftate is of particular value, following treatment with tolinaftate solution for fungal infections of the foot, groin and inner thigh, such as ringworm and athlete's foot, to maintain a complete remission and reduce the chances of reinfection from the fungal organisms.

**Caution** If the patient shows no improvement after three weeks, or if evidence of irritation or sensitivity develops, or if lesions become worse after

use of the drug, treatment should be discontinued. Medical advice on further treatment should be obtained by radio.

**Adverse Reactions** Occasional sensitivity or irritation of skin.

**Adult Dosage** A small quantity of powder should be dusted over lesions or healed areas and gently rubbed in. The powder and solution used together is an effective treatment of athlete's foot. The solution is applied to the affected skin and the powder shaken lightly into the shoes. Shoe dusting should be continued after lesions are healed.

**103. Tolnaftate Solution, 1%**  
(Trade Name: Tinactin)

**Category** Topical Antifungal

**Use** For topical treatment of a number of acute and chronic fungal infections of the skin. Tolnaftate is specific for the treatment of ringworm athlete's foot, and susceptible fungal infections of the groin and inner surfaces of the thighs.

(Tolnaftate powder can be used advantageously in conjunction with tolinaftate solution on naturally moist skin areas where drying may enhance the therapeutic response).

**Caution** Treatment with tolinaftate should be discontinued if the patient shows no improvement after three weeks.

**Adverse Reactions** Skin irritation or sensitivity or worsening of the lesions may occur and require discontinuing the drug. Medical advice should be sought by radio regarding further treatment.

**Adult Dosage** Apply one or two drops to area and rub well into lesions twice daily for two or three weeks.

**104. Whisky, Medicinal, 480 ml.**

**105. Zinc Oxide Paste**  
(Trade Name: Lesser's Plain Zinc Paste)

**Category** Astringent, Antiseptic Paste

**Use** Zinc ointment is a nontoxic, protective, water insoluble, mildly astringent and antiseptic paste employed in a wide variety of disorders and irritations of the skin. It is somewhat more protective than zinc ointment. It is useful to protect the nose, lips, and mouth area against sunlight and salt haze.

**Adult Dosage** Apply as needed in a thin layer to skin areas to be treated or protected.

**106. Meclizine Hydrochloride, Tablets, 25 mg.**  
(Trade Name: Antivert, Bonine)

**Category** Antiemetic, Antivertigo Agent

**Use** For relief of nausea, vomiting, and dizziness associated with motion sickness or disease affecting the middle ear.

**General Information** Meclizine is an antihistamine used to treat or prevent nausea, vomiting, and motion sickness. It takes a little longer to start working than most other drugs of this type but lasts longer (1 to 2 days). In



	general, meclizine does a better job preventing motion sickness than treating the symptoms once they are present.
Caution	Do not take this medication if you are allergic to it. Do not administer to women who are pregnant for meclizine has been associated with birth defects.
Side Effects	Drowsiness, dry mouth, and blurred vision are most common.
Adverse Drug Effects	Infrequent—difficulty in urination, constipation.
Drug Interactions	Meclizine may cause sleepiness, tiredness, or inability to concentrate. Avoid tranquilizers, sleeping pills, alcoholic beverages, barbiturates, narcotics, and antihistamines, which can add to these effects.
Adult Dosage	Take one or two tablets one hour before voyage; repeat every 24 hours for duration of journey.
	For control of dizziness (diseases affecting middle ear), take one tablet four times a day.
Special Information	Meclizine may cause drowsiness and inability to concentrate, be extremely careful while operating machinery.

*107. Dextrose, 0.5% D/W*

Category	Intravenous solution.
Use	Intravenously administered, it is used for conditions requiring sugar replacement, and other applications.
Caution	Before administering, obtain medical advice by radio (see 93).

*108. \*\*Flurazepam Capsules, 15 mg, 30 mg*  
(Trade Name: Dalmane)

Category	Hypnotic; Sedative
Use	Promotion of sleep in extreme insomnia or stress.
General Information	The drug is rapidly absorbed in the GI tract. It is rapidly metabolized and excreted by the kidney.
Caution	Same as No. 31 (Diazepam)
Note	Clinical observation points to the drug as being increasingly effective on the second or third night of consecutive use and effective for one or two nights after the drug is discontinued.
Side Effects	Dizziness, drowsiness, light-headedness and tendency to fall.
Drug Interaction	Same as No. 31 (Diazepam)
Adult Dosage	One 30 mg capsule before retiring.

*109. Ergonovine, maleate, 0.2 mg., 1 ml.*  
(Trade Name: Ergotrate)

Category	For control of postpartum hemorrhage.
General Information	Ergonovine is indicated for the prevention and treatment of postpartum and postabortal hemorrhage and puerperal morbidity.
Caution	Before administering, obtain medical advice by radio.
Adult Dosage	One ampule (0.2 mg.), intramuscular.

## MEDICATIONS AND COMMON USE

1. Acetaminophen 325 mg. For moderate pain and fever.
2. Acetazolamide 250 mg. A diuretic for glaucoma.
3. Alcohol Topical antiseptic.
5. Aluminum Acetate Powder Astringent; wet dressing.
6. Aluminum Hydroxide Gel Antacid
7. Aluminum Hydroxide Tabs Antacid
8. Aminophyllin Suppositories Bronchial asthma.
9. Ammonia, Aromatic, Inhalants Irritating stimulant.
10. Ampicillin HCl 250 mg. Oral antibiotic.
11. Amyl Nitrite Inhalants Angina Pectoris.
12. Aspirin 325 mg. For pain, fever and inflammation.
13. Atropine Sulfate Injection Antidote for poisoning by insecticides.
14. Bacitracin Ointment Topical anti-infective.
15. Belladonna Tincture For spasms of GI tract.
16. Whitfield's Ointment Topical anti-fungicide.
17. Benzoin Tincture, Spray Topical skin protectant.
18. Calamine Lotion, Plain Topical astringent, skin protectant.
19. Calcium Gluconate Injection Antidote to oxalic acid and sodium fluoride poisoning.
20. Charcoal, Activated Powder General antidote.
21. Cidex Sterilizing Solution Sterilizing solution.
22. Chloroquin Phosphate Anti-malaria.
23. Clove Oil Topical relief of toothache.
24. Codeine Sulfate For severe pain.
25. See #106
26. Dextran Injection, I.V. Blood plasma expander.
27. Guaiacum with D.M. For cough and chest congestion.
28. Dextrose with NaCl Injection, I.V. To replace sodium and chloride loss.
29. Dextrose Injection For insulin shock
30. Diazepam Injection For severe agitation.
31. Diazepam Tablets For common anxiety and tension.
32. Digoxin Tablets For congestive heart failure.
33. Diphenhydramine Capsules Anti-histamine.
34. Diphenhydramine Injection For severe allergic reactions.
35. Diphenoxylate with Atropine For severe diarrhea.
36. Benzalkonium Chloride Sol. Disinfectant solution.
37. Ephedrine Sulfate Capsules For asthma.
38. Epinephrine Injections For acute asthma or penicillin reactions.
39. Erythromycin Tablets Oral antibiotic.
40. Ethyl Chloride Spray Topical anesthetic.
41. Eye Wash, Sterile Eye irrigating solution.
42. Fluorescein Ophthalmic Strips For the detection of foreign particles in the eye.
43. Furosemide Tablets Oral diuretic.
44. Gamma Benzene Cream For scabies, lice and chiggers.
45. Glucagon Injection Emergency treatment of shock insulin.
46. Hand and Body Lotion General purpose emollient.
47. Hemorrhoidal Suppositories For hemorrhoids.
48. Homatropine Eye Drops Dilation of the pupil.
49. Hydrocort-Neo-Poly Ear Drops Anti-infective for ear.
50. Hydrocortisone Ointment Topical anti-inflammatory.
51. Hydrocortisone Na. Succ. Injection For severe shock.
52. Hydrogen Peroxide Solution Germicidal, oxidizing agent.
53. Insect Repellent To repel mosquitoes.
54. Insulin Injection U-100 For diabetes.
55. Ipecac Syrup To cause vomiting.
56. Kaolin Mixture with Pectin For simple diarrhea.
57. Lactated Ringer's Injection For replacing body fluids.
58. Lidocaine HCl. Injection Local anesthetic.
59. Lubricating Jelly A lubricant.
60. Magnesium Sulfate Laxative, external wet dressing.
61. Menthol Ointment Topically to relieve muscle pain.
62. Meperidine HCl. Injection For severe pain.

63. **Metaraminol Injection** To restore fallen blood pressure.
64. **Milk of Magnesia** Antacid/Laxative.
65. **Mineral Oil** Skin emollient/protective.
66. **Morphine Sulfate Injection** For severe pain.
67. **Naloxone HCl. Injection** Narcotic antagonist.
68. **Nitroglycerin Tablets** Angina pectoris.
69. **Oxygen** Therapeutic gas.
70. **Paraldehyde Solution** Alcohol withdrawal symptoms.
71. **Penicillin Injection 600,000 U.** Antibiotic.
72. **Penicillin Injection 2.4 mm. U.** For uncomplicated gonorrhea.
73. **Penicillin V 250 mg.** Oral antibiotic.
76. **Petrolatum Ointment** Topical protective dressing.
77. **Phenobarbital Tabs** Sedative, anticonvulsant.
78. **Phenylephrine Nasal Spray** To relieve nasal stuffiness.
79. **Phenytoin Na. Caps** To prevent epileptic seizures.
80. **Pilocarpine Eye Drops** Management of glaucoma.
81. **Poly-B, Neo-Bacit. Eye Ointment** Anti-infective for the eye.
82. **Poly. Neo. Gram. Eye Drops** Anti-infective for the eye.
83. **Povidone Iodine Solution** Topical germicidal cleansing agent.
84. **Povidone Iodine Skin Cleanser** Topical antiseptic/germicidal solution.
85. **Prednisolone Na. Eye Drops** Anti-inflammatory for eye.
86. **Probenecid 500 mg.** Anti-gout/increase blood concentrations.
87. **Tetracaine Eye Drops** Anesthetic for the eye.
88. **Pyrimethamine 25 mg. Tabs.** Anti-malarial.
89. **Quinine Sulfate Capsules** Anti-malarial.
90. **Sodium Bicarbonate Injection** To combat metabolic acidosis.
91. **Sodium Bicarbonate Powder** For insect bites and stings.
92. **Sodium Biphosphate Enema** To help eliminate fecal impactions.
93. **Sodium Chloride Inject.** To replace chloride and sodium loss.
94. **Sodium Chloride Tablets** To help avoid heat exhaustion.
95. **Sulfadiazine Silver Cream** Topical anti-infective in burns.
96. **Sulfisoxazole 500 mg. Tabs** For urinary tract infections.
97. **Sunscreen Preparation** To block harmful rays of the sun.
98. **Talc Powder** Dusting powder.
99. **Tetanus Immune Human Globulin** To provide passive immunity to tetanus.
100. **Tetanus Toxoid** To provide passive immunity to tetanus.
101. **Tetracycline 250 mg. Caps.** Oral antibiotic.
102. **Tolnaftate Powder** Topical anti-fungal powder.
103. **Tolnaftate Solution** Topical anti-fungal solution.
105. **Zinc Oxide Paste** Topical protective astringent, antiseptic paste.
106. **Meclizine HCl. Tabs.** For seasickness.
107. **Dextrose 0.5% D/w i.v.** For intravenous.
108. **Flurazepam, 15 mg., 30 mg. capsules.** For promotion of sleep.
109. **Ergonovine, maleate. Injection.** For postpartum hemorrhage.

## GLOSSARY

- Acidosis** Condition of decreased alkalinity in the body, caused by excess formation of acid or by depletion of base.
- Addiction** Habituation to the use of a drug or other substance. Withdrawal of the addicting agent gives rise to physical symptoms and an overwhelming desire for the agent.
- Adrenal corticosteroid** Drug related to hydrocortisone, corticosterone, or deoxycorticosterone used primarily for its ability to reduce inflammation. Also used to replace natural corticosteroids in deficient patients.
- Allergy** Unusual response produced in some people when exposed to a drug, food, or other substance. The response can vary widely from a simple rash to life-threatening symptoms.
- Amoebicide** Drug used to treat infections caused by amoebas, tiny microorganisms commonly found in nature.
- Analgesic** Pain-relieving.
- Anaphylactic** Pertaining to the increased susceptibility to a foreign protein after subsequent absorption of the same protein.

**Androgen** Drug or hormone that stimulates activity in male sex organs or prevents changes in male sex characteristics already present.

**Anemia** Condition in which the number or size of red blood cells or the amount of oxygen-carrying hemoglobin contained in red blood cells is deficient. Anemia is usually further defined according to the causative agent or disease.

**Anesthetic** Drug that produces loss of sensation or of response to stimulation.

**Angina pectoris** Severe chest pain, often extending down the left shoulder and arm, relieved by Nitroglycerin.

**Anorexia** Loss or lack of appetite.

**Antacid** Drug used to neutralize excess acid in the stomach.

**Antianxiety drug** Drug used to treat symptoms of anxiety (feeling of apprehension or danger accompanied by restlessness).

**Antiarrhythmic drug** Drug used to help regulate unusual or abnormal heart rhythms.

**Antiasthmatic drug** Drug used to treat symptoms of asthma, including difficulty in breathing, with wheezing.

**Antibacterial drug** Drug that is destructive to or prevents the growth of bacteria.

**Antibiotic** Substance from a mold or bacteria which slows or stops the growth of other bacteria.

**Anticholinergic drug** Drug that antagonizes or counteracts the effects of acetylcholine, a natural hormone responsible for certain nervous system activities.

**Anticoagulant drug** Drug used to extend the time it normally takes for blood to clot.

**Anticonvulsant drug** Drug used to prevent or treat any disease associated with violent involuntary muscle contractions.

**Antidepressant** Drug used to treat the symptoms of depression (dejection, sinking of one's spirits).

**Antidiabetic drug**—Drug used to treat diabetes mellitus.

**Antidiarrheal drug** Drug used to treat diarrhea.

**Antidote** Drug used to counteract the adverse effects of a drug or chemical.

**Antiemetic drug** Drug to control vomiting.

**Antiflatulent drug** Drug used to relieve discomfort due to excessive gas in the stomach or intestines.

**Antihelminthic drug** Drug used to treat infections caused by helminths (worms).

**Antihistamine** Drug used for its ability to neutralize the effects of histamine, a naturally occurring substance; used to relieve the symptoms of allergy.

**Antihyperlipidemic drug** Drug used to help control high levels of fats (cholesterol; triglycerides) in the blood.

**Anti-infective** Relating to any agent used to treat an infection.

**Antineoplastic drug** Drug used to treat neoplasms (unusual growths of tissue). Cancers are neoplastic diseases. Benign (non-cancerous) growths are also neoplastic.

**Antipruritic drug** Drug used to relieve itching.

**Antipyretic drug** Drug used to reduce fever.

**Antirheumatic drug** Drug used to treat or prevent rheumatism.

**Antiseptic** A medicine that retards the growth of microorganisms.

**Antitoxin** Drug that neutralizes the effects of toxins (poisons, usually produced by bacteria invading the body).

**Antitussive drug** Drug used to relieve cough.

**Arrhythmia** Unusual or irregular heartbeat.

**Asepsis** Condition of freedom from microbial contamination; absence of sepsis.

**Astringent** A medicine that contracts tissue and decreases the size of vessels.

**Ataraxic** A drug that produces calm or composure (tranquilizer).

**Ataxia** Loss of ability to coordinate muscular movements.

**Atrophy** Shrinkage and wasting of tissues.

**Bacteria** Living organisms, visible only under a microscope, which may infect humans and cause disease. Bacteria are classified according to shape, chemical reactivity, and nutrients they require.

**Bactericidal** Refers to an agent that brings about death of bacteria.

**Bactericidal drug** Drug that kills bacteria.

**Bacteriostasis** A condition in which bacteria are prevented from growing and spreading. Adjective "Bacteriostatic" is more general in its meaning than antiseptic.

**Bacteriostatic drug** Drug that inhibits the reproduction of bacteria.

**Blood count** Number of red and white blood cells found in a standard sample of blood.

- Blood dyscrasia** General term for any blood disease.
- Blood sugar** Sugar normally found in the blood and burned for energy. Normal level of blood sugar is approximately 100 mg%.
- Bradycardia** Slowing of the heartbeat, usually to less than 60 beats per minute.
- Bronchodilator** Drug used to help relax the bronchial muscles and to widen the bronchial passages.
- Calorie** Unit of measure used to determine the energy (heat) value of foods to the body.
- Cancer** General term used to describe malignant neoplasms which tend to spread rapidly and will result in illness and death if left untreated.
- Capillary** Microscopic blood vessel connecting veins with arteries.
- Carcinoma** Cancer.
- Cardiac** Having to do with the heart.
- Cardiac arrest** Stoppage of heart activity.
- Cardiac glycoside** Type of drug that has the ability to increase the strength of and help regulate the rate of the heartbeat.
- Cardiotonic** A drug that produces a favorable effect on the heart; acts like a tonic.
- Cataract** Condition in which the lens of the eye loses its transparency, so that light cannot pass through it normally.
- Cerebrum** Portion of the brain that is the seat of conscious mental processes.
- Cerumen** Earwax.
- Chilblain** Frostbite.
- Climacteric** Menopause.
- Coagulant drug** Drug which causes clotting of the blood.
- Coma** State of unconsciousness from which one cannot be awakened. Causes include diabetes, liver diseases, and thyroid disease.
- Conception** Act of becoming pregnant.
- Congestion** Presence of abnormal amounts of fluids due to increased flow into the area of decreased drainage.
- Corticosteroid** *See* Adrenal corticosteroid.
- Cycloplegia** Paralysis of the muscle of accommodation in the eye (ciliary muscle); this causes blurred vision.
- Cystitis** Inflammation of the urinary bladder.
- Decongestant** Drug that reduces congestion.
- Decubitus** Bedsore.
- Delirium** Condition of extreme mental excitement marked by a stream of confused, unconnected ideas.
- Dementia** General mental deterioration.
- Demulcent** Agent applied to the skin or mucous membranes to relieve an irritation.
- Dermatologic drug** Agent applied directly to the skin.
- Dextrose** *See* Glucose.
- Diabetes** Disease of body metabolism in which there is an insufficient supply of natural insulin. This reduces the body's ability to store or burn glucose.
- Diabetes insipidus** A disease in which the patient suffers from great thirst, drinks a great deal, and has a large urine output.
- Diagnostic drug** Agent used by a physician to assist in the diagnosis of a disease.
- Digestant** A medicine that aids digestion.
- Dilate** To enlarge a cavity, canal, blood vessel, or opening.
- Disinfectant** Agent that inhibits or destroys bacteria which cause disease.
- Diuresis** Rapid secretion of urine; stimulation of formation of urine.
- Diuretic** Drug that stimulates the production and passing of urine.
- Dose** Quantity of a drug or medicine to be taken or applied all at once or over a designated period.
- Drug dependence** Term used to describe drug habituation or addiction.
- Drug interaction** Situation where one drug affects (increases or decreases) the ability of a second drug to exert a therapeutic effect.
- Drug sensitivity** Reaction or allergy to a drug.
- Dyspnea** Difficult or labored breathing.
- Edema** Accumulation of clear watery fluid.
- EEG** Electroencephalogram.
- EKG** Electrocardiogram.
- Electrolytes** Chemicals such as sodium, potassium, calcium, and bicarbonate found in body tissues and fluids.
- Embolism** Obstruction of blood vessel, caused by blood clot or a large mass of bacterial or foreign material.
- Emollient** Agent that softens or smooths irritated skin or mucous membranes.
- Endocarditis** Inflammation of the membrane lining the heart.

- Endocrine glands** Glands that produce hormones and release them directly into the bloodstream.
- Enzyme** Protein, produced by cells, which stimulates a chemical reaction in the body and remains unchanged during the reaction.
- Epilepsy** Chronic disease characterized by periods of unconsciousness, convulsions, or both.
- Eruption** Redness, spotting, or breaking out in a rash on the skin.
- Estrogen** Drug or hormone that stimulates activity in female sex organs or prevents changes in female sex characteristics already present.
- Etiology** The science of causes, as of a disease.
- Euphoria** Feeling of exaggerated well-being.
- Eunuch** An unsexed (castrated) man.
- Exfoliation** Profuse scaling of large areas of skin.
- Expectorant** Drug that stimulates the production of secretions from mucous membranes.
- Fever** Body temperatures above 98.6°F (37°C).
- Fungicide** A substance that is able to destroy a fungus.
- Ganglia** Aggregations or groups of nerve cells.
- Gastritis** Inflammation of the stomach.
- Generic name** Standard name accepted for a drug. Manufacturers often use their own trade name that corresponds to the generic name.
- Glucose** Principal sugar used by the body for energy; also called dextrose.
- Gonad** Sexual gland.
- Hallucination** Perception of something which does not exist.
- Hemorrhoids** Piles.
- Hepatitis** Inflammation of the liver.
- Histamine** Substance produced by the body as part of an allergic reaction; it causes dilation of blood vessels, lowered blood pressure, and stimulation of secretions from the stomach and other organs.
- Hyperacidity** Abnormally large amounts of acid in the stomach.
- Hyperglycemia** Presence of high level of sugar (glucose) in the blood.
- Hyperkalemia** Presence of high potassium level in the blood.
- Hyperlipidemia** High blood level of cholesterol and/or triglycerides.
- Hypertension** High blood pressure.
- Hypoacidity** Unusually low level of stomach acid.
- Hypoglycemia** Low blood sugar (glucose) level.
- Hypokalemia** Low blood potassium level.
- Hypotension** Low blood pressure.
- Immunity** Resistance to the effects of a specified disease or of some other abnormal condition.
- Ketonuria** The passage of ketone bodies (acetone) in the urine. This condition may be present in diabetes or as a result of an unbalanced high-protein diet.
- Larva** A stage in insect life during which the grub emerges from its egg.
- Laudanum** Tincture of opium.
- Laxative** Drug that can loosen the bowels (act as a cathartic). Types of laxatives are bulk, saline, and stimulant.
- Lesion** A local abnormality: bruise, wound, scar, inflammation, cavity, etc.
- Lethargy** Mental dullness and drowsiness.
- Lockjaw** A disease caused by the toxin of tetanus organisms in which the jaws become firmly locked because of muscle spasm.
- Malaise** Feeling of general discomfort or of being out of sorts.
- Metastasis** Shifting of a disease, or its local effect, from one part of the body to another.
- Migraine headache** Pain on one side of the head; complex of effects consisting of head pain, dizziness, nausea and vomiting, and extreme sensitivity to bright light.
- Miotic** A medicine that contracts the pupil of the eye.
- Mydriatic** A medicine that dilates the pupil of the eye.
- Myopia** Nearsightedness.
- Myxedema** A condition of a peculiar swelling of tissues, due to thyroid deficiency and associated with low metabolism.
- Narcolepsy** A condition characterized by an inability to remain awake.
- Narcotic** A medicine that produces sleep or stupor and at the same time relieves pain.
- Nebulizer** Atomizer or vaporizer.

- Necrosis** Death of cells or tissues.
- Neoplasm** New or abnormal growth of tissue usually associated with a tumor.
- Neuralgia** Noninflammatory pain along the course of a nerve.
- Neurasthenia** Nervous exhaustion.
- Neuritis** Inflammation of a nerve.
- Normotension** Blood pressure in the normal range.
- Nostrum** A medicine that authorities recognize as having little or no value (a quack remedy).
- Nystagmus** Rapid uncontrolled eye movement.
- Obesity** Body weight at least 10 to 20 percent greater than the expected value.
- Ophthalmia** Severe inflammation of the eye.
- Orthostatic** Pertaining to the position of the body, e.g., upright position.
- Over-the-counter drug** Medication sold without a prescription. May be purchased in pharmacies and other outlets.
- Palpitation** Rapid heart beat in which the patient feels throbbing in his chest.
- Paralysis** Loss of power in one or more muscles because of injury or disease.
- Parasiticides** Medicines that destroy parasites.
- Parenteral** Refers to administration other than by mouth; given with a needle.
- Paresis** A paralytic disease of the brain; a late stage of syphilis.
- Parkinsonism** A condition characterized by muscular rigidity and tremor due to a disturbance in the corpus striatum of the brain.
- Paroxysm** A sudden, violent outburst.
- Pill** Small mass of material containing a medication and taken by swallowing.
- Plasma** Fluid portion of circulating blood.
- Plasmodium** A microorganism in the blood, causing malaria and similar diseases.
- Platelet** Component of the blood whose primary role is in the clotting mechanism.
- Pneumonia** Inflammation of the lungs, from any cause.
- Polydipsia** Excessive thirst.
- Polyuria** Excessive urination.
- Prescription** Written formula for the preparation and administration of any remedy or medicine, by a qualified, licensed medical practitioner.
- Pressor** Stimulating; increasing tone (e.g., causing an increase in the blood pressure).
- Progestins** Female hormones that cause changes in the uterus to prepare it for the fertilized egg. Progestins may also affect other female sex characteristics.
- Prophylactic** Pertaining to prevention of disease.
- Protozoa** Animal organisms consisting of single cells.
- Pruritus** Itching.
- Psychotherapeutic drug** Drug used as treatment or part of the treatment of emotional disorders.
- Rash** Local or generalized eruption.
- Respiration** Breathing.
- Respiratory depressant** A medicine that lowers the activity of the respiratory center and slows respiration; respiratory stimulants, in toxic doses, are respiratory depressants.
- Respiratory stimulant** A medicine that increases the activity of the respiratory center and accelerates respiration.
- Rhinorrhea** Running nose.
- Rubefacient** A medicine that produces a reddening of the skin as a result of dilating the vessels.
- Somnifacient drug** Drug that produces sleep.
- Spasticity** A tendency to spasm or violent contraction; increased tonus.
- Sphincters** Ringlike muscles closing an orifice or passage (as in the intestine).
- Styptic (hemostatic)** A medicine used to check bleeding and hemorrhage.
- Sulfa drug** Drug belonging to the chemical group of sulfonamides. Members of this group can have anti-infective, diuretic, and antidiabetic properties.
- Sulfonamide** See Sulfa drug.
- Suppurative** Pus producing.
- Sympathomimetic drug** Drug with stimulating action, also causing relief of congestion, increase in blood pressure, and other effects.
- Symptom** Any change in function, appearance, or sensation related to a disease.
- Syndrome** A group of symptoms which, when taken together, indicate the presence of a specific disease.

**Synergism** The harmonious action of two agents such as drugs, or organs such as muscles producing an effect which neither alone could produce, or an effect may result which is greater than the total effects of each agent operating by itself.

**Synthetic** Made in the laboratory; artificially prepared.

**Tablet** Solid dosage form containing medicine. Tablets from different manufacturers may vary in size, color, shape, and content.

**Tachypnea** Abnormal rapidity of respiration.

**Tenesmus** An urgent and distressing desire to empty the bowel or bladder, even though these organs may be empty.

**Testosterone** Male sex hormone.

**Tinnitus** Ringing or noise in the ears, often as a drug side effect.

**Tonus** The state of continuous partial contraction of a muscle or muscles; tone; tenseness.

**Topical** Medically: local (as topical treatment).

**Toxic** Poisonous or harmful.

**Toxin** Substance produced by a cell or group of cells, or by bacteria during their growth, that produces a poisonous effect.

**Toxoid** Toxin that has been treated with chemicals to destroy its harmful properties. After this treatment it can be injected into the human body and will provide immunity to the original toxin.

**Traumatic** Pertaining to physical injury, from a blow, pressure, or torsion.

**Tremor** Involuntary trembling or quivering.

**Tumor** Swelling or neoplasm that grows at an unusual rate.

**Ulcer** Lesion on the surface of the skin or mucous membrane.

**Urticaria** A condition of the skin characterized by wheals surrounded by a red area and associated with sensations of burning and itching, commonly known as "hives".

**Vaccine** Solution of modified virus or bacteria that, when injected, provided immunity to the original virus or bacteria.

**Vasodilator** Drug that causes opening or widening of the blood vessels.

**Vesicant** A medicine that irritates the skin sufficiently to produce blisters or vesicles.

**Virilism** Masculinity; normal in the male but a disease in women, characterized by changes in voice, figure, hair, etc.

**Viscosity** The property of being viscous or sticky, which increases the resistance of a fluid or gas to changes of form.

**Vitamin** Chemical present in foods that is essential to normal body functions and to normal chemical reactions in the body.

**Xerophthalmia** A form of degenerative disease of the eye; atrophy of the conjunctiva.

## SURGICAL EQUIPMENT, INSTRUMENTS, AND SUPPLIES

### Use of the Table of Surgical Equipment, Instruments, and Supplies

It is assumed that the officer aboard a merchant vessel, in either the A or B categories described below, who has the responsibility for the care and treatment of seamen, will have had training in the administration and use of the recommended items.

**Column A** of Table 6-1 shows the minimum number of items (figures in UNIT column) recommended for oceangoing merchant vessels, without a doctor aboard. The quantities are based on an estimated four-month inventory for a crew complement of 25 to 40 persons.

**Column B** of Table 6-1 gives the minimum number of items recommended to be carried aboard merchant vessels engaged in trade solely in coastal, Great Lakes, and nearby foreign ports, and not more than 12 hours away from a port of call. The quantities are based on an estimated four-month inventory for a crew complement of approximately 25 persons.

**Column C** of Table 6-1 presents the minimum number of items recommended for fishing boats or private craft which normally do not carry more than 15 persons, and are never more than a few days from home port, or a few hours from a port of call.

### Procurement and Storage of Surgical Equipment, Instruments, and Supplies

The kinds of surgical equipment, instruments, and supplies and quantities that are rec-



Table 6-1

## Surgical Equipment, Instruments, and Supplies Recommended for the Ship's Medicine Chest

Description of Item	Unit	Quantities			Notes
		A	B	C	
Equipment					
Basin, emesis, kidney shape	each	1	1	—	
Basin, wash, with rim	each	1	1	—	
Bedpan	each	1	1	—	
Board, spine, long	each	1	1	1	
Cane, with rubber tip	each	1	1	—	
Crutch, adjustable, wood, with rubber tips	pair	1	—	—	
Cushion, crutch, sponge rubber, arm	each	2	—	—	
Heating pad, electric, waterproof, AC/DC	each	1	—	—	
Hot water/ice bag, rubber, stopperless type	each	1	1	—	
Litter, Stokes	each	1	1	—	
Oxygen unit, portable, with size E oxygen cylinder, adult face mask, regulator, tubing, wrench, instruction books (all in self-contained carrying case)	each	2	1	1	
Refrigerator, about 3.2 cu ft capacity, with inside thermometer, cyclamatic automatic defrosting, to operate on ship's electrical current, and fitted with a lock	each	1	1	—	
Restraining equipment					Restrains may be improvised from bedsheets. (See pp. V-71, V-72.)
Cuffs, leather or cloth	pair	2	1	—	
Mummy restraint	each	1	1	—	
Sideboard	each	2	2	—	
Resuscitator, hand-operated, with excess pressure relief device, inlet check valve w/nipple for optional connection to low pressure oxygen line	each	1	1	1	Consists of a compressible bag with a check valve, storage bag/grommets, adult face mask, and a non-rebreathing valve.
Scales, adult, weighing, clinical, 300 pound capacity	each	1	—	—	
Sphygmomanometer, aneroid, 300 mm scale, hand type, complete in case	each	1	1	1	Unit for taking blood pressure.
Splint, Hare traction	each	1	—	—	
Splints, inflatable, arm, for above/below elbow, assorted sizes, 6s	pkg.	1	1	1	
Splints, inflatable, leg, for above/below knee, assorted sizes, 6s	pkg.	1	1	1	
Splints, finger, aluminum padded, assorted sizes, 6s	pkg.	1	1	1	
Sterilizer, steam pressure type, for dressings and instruments	each	1	—	—	Should be of a type with a drying phase

Table 6-1 (continued)

## Surgical Equipment, Instruments, and Supplies Recommended for the Ship's Medicine Chest

Description of Item	Unit	Quantities			Notes
		A	B	C	
Equipment (continued)					
Stethoscope, disc-diaphragm type	each	1	1	1	To be a component of the sterilizer ; must fit inside sterilizer compartment
Stretcher (litter), folding, rigid pole	each	1	—	—	
Thermometer, bath	each	2	—	—	
Tray, with cover, for small instrument sterilization	each	1	—	—	
Urinal, male	each	2	—	—	
Receptacle, with pedal-operated lid, 12 liter (4 gal)	each	1	—	—	
Instruments					
Airway, pharyngeal, plastic, adult and child sizes	each	2	1	1	
Blade, surgical knife, detachable, small tang, no. 10, sterile 6s	pkg.	1	1	—	
Blade, surgical knife, detachable small tang, no. 11, sterile, 6s	pkg.	1	1	—	
Blade, surgical knife, detachable small tang, no. 15, sterile 6s	pkg.	1	1	—	
Forceps, dressing, bayonet-shaped, Adson, 7½ inch	each	1	1	1	
Forceps, hemostat, curved, Halstead, mosquito, 5 inch	each	2	—	—	
Forceps, hemostat, straight, Halstead mosquito, 5-inch	each	2	—	—	
Forceps, hemostat, curved, Kelly, 5½-inch	each	2	—	—	
Forceps, splinter, tweezers, 3½-inch	each	1	1	1	
Handle, knife (scalpel), #3	each	2	1	—	For detachable surgical knife blades
Scissors, bandage, Lister, angular, one point sharp, one point blunt, 7¼-inch	each	3	1	1	
Supplies					
Adhesive tape, surgical, 2 inches by 5 yards	roll	6	1	1	
Adhesive tape, surgical, porous, hypoallergenic, 2 inches by 10 yards	roll	2	1	—	For use on patients allergic to regular adhesive tape.
Administration set, intravenous, with butterfly hub needle, 19-gauge x 1½-inch, sterile, disposable (IV Set)	each	6	1	—	Procure from the same manufacturer that supplies the intravenous fluids.

Table 6-1 (Continued)

## Surgical Equipment, Instruments, and Supplies Recommended for the Ship's Medicine Chest

Description of Item	Unit	Quantities			Notes
		A	B	C	
Supplies (continued)					
Applicators, wood, cotton tipped ends, sterile, 1/12 inch by 6 inches, 2s	pkg.	25	25	25	
Bandage, cotton, elastic, rubberless, 4 inches by 5 1/2 yards, roll, 12s	box	1	-	-	
Bandage, cotton, elastic, rubberless, 3 inches by 5 1/2 yards, roll, 12s	box	1	1/2	1/2	
Bandage, cotton, elastic, rubberless, 2 inches by 5 1/2 yards, roll, 12s	box	1	1/2	1/2	
Bandage, gauze, roller, sterile 1 inch by 10 two ply, clinging, two safety pins, 12s	pkg.	1	1	1	Elastic gauze bandage similar to Kling® bandage
Bandage, absorbent, adhesive, 3/4 inch by 3 inches, 100s	box	2	1	1	Absorbent bandage with adhesive similar to Band-aids®
Forcens, splinter, tweezers, 3 1/2-inch yards, 12s	box	1	1	1	
Bandage, gauze, roller, sterile, 3 inches by 10 yards	each	6	3	3	
Bag, mortuary transfer, leakproof (see mortuary transfer bag, leakproof)	each	2	-	-	
Bandage, muslin, triangular, folded, with two safety pins, 37 inches by 52 inches	each	2	1	1	May be used as a sling or as a general bandage wrap.
Bottle, vial, amber, 9 dram, glass or plastic, for capsules or tablets, 72s	box	1	-	-	Gummed labels should be procured and kept with these bottles.
Catheter, double eye, pointed, Robinson, sterile, disposable:					
6 French	each	1	1	-	For urinary catheterization. 6- and 8 French can be used for pharyngeal suction.
8 French	each	1	1	-	
10 French	each	1	1	-	
12 French	each	1	1	-	
14 French	each	1	1	-	
16 French	each	1	1	-	
Catheterization tray, sterile, disposable, regular type: a 14 French straight catheter, sterile gloves, small forceps, cotton balls, lubricant, antiseptic solution, underpad and drape, specimen container and label	each	3	1	-	
Catheter, urethral, balloon, round tip, self-retaining, double eye, modified Foley, sterile, 5 ml bag:					
14 French	each	1	-	-	
20 French	each	1	-	-	

Table 6-1 (continued)

## Surgical Equipment, Instruments, and Supplies Recommended for the Ship's Medicine Chest

Description of Item	Unit	Quantities			Notes
		A	B	C	
Supplies (continued)					
Catheterization tray, sterile, disposable, retention type: with 5 ml bag, 16 French Foley catheter, sterile gloves, small forceps, cotton balls, lubricant, antiseptic solution, 10 ml syringe with 9 ml sterile water, underpad and drape, specimen container and label	each	2	1	—	
Clinical record chart, pad	pad	1	1	—	
Collar, cervical, with strap	each	1	—	—	
Cotton, absorbent, sterile, 115 g	pkg.	3	1	1	
Finger cots, rubber assorted sizes, 12s	box	1	1	1	
Flashlight (penlight type), with replacement batteries	each	1	1	1	
Gauze, petrolatum, 6 inches by 36 inches, sterile, 6s	box	2	1	1	
Gauze, bandage, tubular 7/8-inch by 5 yards, rolled, with applicator	roll	1	1	1	Covering bandage for fingers and toes.
Gloves, surgical, sterile, disposable, large size (size no. 7½ or 8), 12s (pair)	box	1	—	—	
Gowns, surgical, disposable	each	50	—	—	
Hammer, reflex testing, 8-inch	each	1	—	—	
Masks, face, disposable, 100s	box	2	—	—	
Medicine cup, (waxed paper or plastic), 30 ml, graduated, disposable, 100s	box	1	1	1	
Mortuary transfer bag, leakproof	each	2	—	—	
Needle holder, suture, Hegar-Mayo 5½ inch	each	2	—	—	
Needle, hypodermic, 18 gauge, 2-inch, sterile, 6s	pkg.	6	—	—	
Needle, hypodermic, 25 gauge, ½-inch sterile, 6s	pkg.	6	1	—	
Occult blood detection tablet, with 60 filter papers, 60s	pkg.	1	—	—	For detection of occult blood in feces or sputum.
Orangewood Sticks, 25s	pkg.	1	1	1	
Otoscope, battery type, with aural and nasal speculum	each	1	—	—	Maintain replacement lamps and batteries.
Pad, abdominal, sterile combined dressing, gauze, 8 inches by 7½ inches, individually sealed	each	6	3	3	
Pad, cotton, eye, sterile, individually sealed, 12s	pkg.	1	1	1	
Pad, non-adherent sterile dressing, non-woven cotton and rayon fabric with perforated plastic cover, individually sealed, 3 inches by 4 inches, 100s	pkg.	1	1	1	Similar to Telfa® type gauze pads. Dry dressing material for wounds.

Table 6-1 (Continued)

## Surgical Equipment, Instruments, and Supplies Recommended for the Ship's Medicine Chest

Description of Item	Unit	Quantities			Notes
		A	B	C	
Supplies (continued)					
Safety pins, rustless, assorted sizes, 50s	card	1	1	1	
Scrub brush, hand	each	2	2	1	
Sheath, rubber (condoms) 3s	pkg.	a sufficient quantity			
Sheet, waterproofing, 45 inches by 72 inches	each	2	1	1	
Skin closure, adhesive, surgical, sterile (butterfly closure), 1/4-inch, 25s	pkg.	4	1	1	To close wounds in place of sutures when feasible.
Sponge (pad), isopropyl alcohol impregnated, sterile, individually sealed in plastic foil, nonwoven, cotton or rayon, 1 1/2-inch by 2 inches, 100s	pkg.	1	1	1	For preparation of the skin prior to injections.
Sponge, surgical, sterile, eight ply, gauze, 4 inches by 4 inches, in sealed envelopes, 200s	pkg.	1	1/4	1/4	
Sponge, surgical, sterile, eight ply, gauze, 2 inches by 2 inches, in sealed envelopes, 200s	pkg.	1	1/4	1/4	
Suture, tapered, 1/2 circle nontraumatic needle, 1 1/8 inch, absorbable, nonboilable, 27 inches long, size 00, sterile, individually sealed, 12s	pkg.	1	-	-	
Suture armed, 1/2 circle, 1-inch nontraumatic needle, nonabsorbable, silk, braided, 18 inches long, size 000, sterile, individually sealed, 12s	pkg.	2	1	-	
Suture, armed, 3/8-circle, 1 1/16-inch needle, 000 size, sterile, absorbable, individually sealed, 12s	pkg.	1	-	-	
Suture, armed, nonabsorbable, polyester, 3/8-circle, 1/2-inch needle with nontraumatic point, size 5-0, sterile, sealed, 12s	pkg.	1	-	-	
Suture removal kit, containing: suture removing forceps, sterile, and suture removal scissors, sterile	kit	1	-	-	
Syringe, ear and nose, rubber, 90 ml (3-ounce)	each	2	1	1	
Syringe, glass, 120 ml (4 ounce) complete with removable rubber bulb and tip	each	4	1	1	
Syringe, hypodermic, insulin, 100 units/ml, 1 ml, 3/4-inch 25 gauge needle affixed, sterile, disposable, sealed	each	24	6	1	
Syringe, hypodermic, Luer, 2 ml, 25 gauge 3/4-inch needle affixed, sterile, disposable, individually sealed	each	24	6	1	

Table 6-1 (continued)

## Surgical Equipment, Instruments, and Supplies Recommended for the Ship's Medicine Chest

Description of Item	Unit	Quantities			Notes
		A	B	C	
Supplies (continued)					
Syringe, hypodermic, Luer, 5 ml, 21 gauge 1½-inch needle affixed, sterile, disposable, sealed	each	12	1	1	
Syringe, Luer, general lavage, large tip with metal syringe adapter, 50 ml	each	2	1	1	
Syringe, cartridge holder for injectable medications	each	2	1	—	To be used with a drug unit dose system (a closed injection system such as Tubex®)
Test strip and color chart combined (urinary blood, glucose, ketone, protein, bilirubin, and pH), 100s	bot.	1	1	1	Similar to Bili- Labstix®
Test tablets, kit, glucose (reducing sugar) in urine, individually sealed, 36s	pkg.	3	—	—	Similar to Clinitest® tablets.
Tissues, facial	box	6	3	3	
Thermometer, clinical, fever, combination oral-rectal (stubby type)	each	6	2	2	
Tourniquet, non-pneumatic, blood-taking type, composed of gum rubber with velcro type fastener	each	1	1	1	
Tongue depressors, wood, 100s	box	1	¼	¼	
Towels, paper, sterile, disposable, individ- ually wrapped, 12s	pkg.	2	1	—	
Towels, surgical, cotton, 12s	pkg.	1	—	—	
Tube, stomach, with funnel	each	2	1	—	For stomach lavage in case of poisoning.
Urine collection bag, with tubing, sterile, disposable	each	2	1	—	
Visual chart, "Snellen" type	each	1	—	—	For eye examination.
Wrapping material, autoclave	pkg.	1	—	—	For wrapping instruments and dressings for sterilization.
Wrapping (sealing) tape, ½-inch by 60 yards, sterilization indicator	roll	1	—	—	See preceding entry.

ommended to be maintained on board vessels are shown in table 6-2. These items will be either reusable or disposable, sterile or non-sterile.

Where commercially available, packaged sterile disposable supplies and equipment should be procured, especially disposable needles,

syringes, medicine cups, dressing and suture trays, catheter trays, enema preparations, and surgical gloves. It is now generally recognized that the incidence of hepatitis and many other infections has been decreased through the use of commercially packaged sterile disposables.

**Table 6-2**  
**Weights and Measures with Approximate Equivalents**

**Selected Metric System Units  
with Approximate Equivalents\* in Other Systems**

**Metric Weights**

1 kilogram (kg), 1000 grams	= 2.2 pounds (lb)
	Avoirdupois
1 gram (g or Gm), 1000 milligrams	= 15 grains (gr)
1 milligram (mg), 0.001 gram	= 1/60 grain
1 microgram (mcg), 0.001 milligram	= 1/60,000 grain

Note: Care must be continually exercised to not misinterpret the abbreviation "g" for "gr" as, dosage-wise, one gram (g) is 15 times as potent as one grain (gr).

**Metric Liquid Measures**

1 liter (l), 1000 milliliters	= 32 fluid ounces (fl. oz)
1 milliliter (ml)	= 16 minims (min)

Note: A milliliter (ml) is the approximate equivalent of one cubic centimeter (cc).

**Household Measures and Approximate Equivalents**

240 ml	=	tumblerful or cup	=	8 fluid ounces
120 ml	=	teacup	=	4 fluid ounces
60 ml	=	wineglass	=	2 fluid ounces
15 ml	=	tablespoonful	=	3 fluid drams
8 ml	=	dessertspoonful	=	2 fluid drams
5 ml	=	teaspoonful	=	1 fluid dram

Note: In most cases, the modern household containers have been found to *average* 25% greater capacity than the theoretical quantities shown above.

**Selected Apothecary and Avoirdupois Systems Units  
with Approximate Equivalents in the Metric System**

<b>Apothecary Weights</b>	<b>Metric System Equivalents</b>
1 ounce, 480 grains	= 30 grams
1 dram, 60 grains	= 4 grams
1 grain	= 60 or 65 milligrams

**Apothecary Liquid Measures**

1 quart (qt), 32 fluidounces	= 1,000 milliliters (ml)
1 pint (pt), 16 fluidounces	= 500 ml
1 fluid ounce (fl oz)	= 30 ml
1 fluid dram, 60 minims	= 4 ml
1 minim	= 0.065 ml

**Avoirdupois Weights**

1 pound (lb)	= 454 grams
1 oz	= 28.35 grams

**Selected Metric System Lengths  
with Approximate English Equivalents**

1 meter (m)	= 39.37 inches
1 centimeter (cm)	= 0.4 inch
1 millimeter (mm)	= 0.04 inch

**Selected English System Lengths  
with Approximate Metric Equivalents**

1 yard (yd)	= 0.9 meter
1 foot (ft)	= 0.3 meter
1 inch (in)	= 2.5 centimeters

\* More than one approximate equivalent may be customary and acceptable when conversion is necessary between systems, such as Metric to Apothecary. Some examples of this are as follows: one grain may be ex-

pressed in the Metric System either as 60 mg or 65 mg; one and one-half (1½) grains as either 90 mg or 100 mg; and five grains as either 300 mg or 325 mg.

When items are processed and sterilized aboard ship, there is always the danger that they will be inadequately sterilized, and their use could possibly result in adding an infection to an already ill patient.

Commercially packaged and presterilized disposables are protected by inner and outer envelopes which are mechanically sealed. This type of packaging prevents biological contaminants from gaining access to the interior; so sterility will be maintained for as long as the package remains intact. However, assurance that the item is "sterile" is only one aspect of commercial packaging. Other advantages are: clear instructions on the package prevent misunderstanding and encourage proper use; pack-

ages can be opened easily without breaking asepsis; and often, the package wrapping can serve as a sterile field.

The contents of unopened or intact sterile disposable packages should remain sterile until opened. However, to be assured that the contents have not deteriorated, *they should be replaced at least every five (5) years or on the expiration date, whichever occurs first.*

In purchasing supplies, whether reusable or disposable, it is important to know the approximate usage of the article to avoid either overstocking or understocking. When receiving surgical supplies, to insure rotation of stock, it is important that new items be placed on shelves *in back of or under those on hand.* This

procedure will help assure that the oldest supplies will be used first.

**Sterilizing Surgical Equipment,  
Instruments, and Supplies**

Should it be necessary to process and sterilize reusable (nondisposable) supplies, equipment or instruments, only persons who have been fully trained in sterilization techniques and procedures should be assigned to this activity. To a significant extent, the knowledge and integrity of the people who do the work determine the quality and safety of the finished product.

When it is necessary to prepackage and sterilize reusable items for future use, the following factors should be kept in mind. Under normal conditions of clean storage, items en-

closed in wrapping material suitable for sterilization by steam under pressure, and sterilized correctly, can be depended upon to remain sterile for at least 30 days. This also applies to articles placed in autoclavable plastic coverings with effective closures. Changes in atmospheric conditions surrounding the packages, deterioration of the wrapping material, and rough handling of the packages are contributing factors to possible contamination.

If a great number of these prepackaged sterile supplies have not been used by the end of 30 days, an effort should be made to reduce the need for resterilization by decreasing the sterile inventory of the unused articles. Before resterilization, all components of the package including the wrapper, must be completely reprocessed.